SEARCH REQUEST FORM

Requestor's Name: Scilly Tena	Nu	mber: <i>U^_/</i> _	455,683	
Date: 7/22/97	Phone: <u>302-4</u> 2	230 Art	Unit: <u>18/2</u>	
Search Topic: Please write a detailed statement of search top terms that may have a special meaning. Give please attach a copy of the sequence. You may	examples or relevent citations	, authors, keyword:	, etc., if known. For sequence	any es,
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TITLE	AUTHORS	REFERENCE	MEDLINE	JOURNAL			TITLE		AUTHORS	REFERENCE			ORGANISM	SOURCE	KEYWORDS	NID	ACCESSION	DEFINITION	LOCUS	RESULT 1
Isolation of a human kappa opioid receptor cDNA from placenta	Mansson, E., Bare, L. and Yang, D.	2 (bases 1 to 1154)	95350200	Proc. Natl. Acad. Sci. U.S.A. 92 (15), 7006-7010 (1995)	expression pattern in the central nervous system	chromosomal assignment, functional expression, pharmacology, and	kappa-Opicid receptor in humans: cDNA and genomic cloning.	Micheletti, G., Mattei, M.G., Charron, G., Bloch, B. and Kieffer, B.	Simonin, F., Gaveriaux-Ruff, C., Befort, K., Matthes, H., Lannes, B.,	1 (bases 1 to 1154)	Vertebrata; Eutheria; Primates; Catarrhini; Hominidae; Homo	Eukaryotae; mitochondrial eukaryotes; Metazoa; Chordata:	Homo sapiens	human.	•	g596069	U17298 ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' '	eceptor (hKOR) mRNA, complete	HSU17298 1154 bp mRNA PRT 14-TIT-1995	

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1 (bases 1 to 1604)
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               Similarity
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                                                                /gene="OPRK1"
/codon_start=1
/db_xref="GDB:G00-132-651"
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                                                                                                                                                                                                                                                                      /tissue_lib="genomic ZAPII"
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/clone="d2-115"
/dev_stage="fetus"
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                                                                                                              TGAAGATCTGCGTCTTCATCTTTGCCTTCGTGATCCCTGTCCTCATCATCATCGTCTGCT
                                                                                                                                                                              ATGTCATTGAGTGCTGCTTGCAGTTCCCAGATGATGACTACTCCTGGTGGGACCTCTTCA
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                                                 ACACCCTGATGATCCTGCGTCTCAAGANNGTCCGGCTCCTTTCTGGCTCCCGAGAGAAAG
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Submitted (20-JUN-1994) Erik Mansson, Molecular Biology,
PPD, 100 Mounatain Avenue, Murray Hill, NJ 07974, USA
Location/Qualifiers
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Mansson,E., Bare,L.A. and Yang,D.
Isolation of a human kappa opioid r
Biochem, Biophys. Res. Commun. 202,
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/codon_start=1
/product="kappa opioid receptor"
/db_xref="plp:g532060"
/db_xref="plp:g532060"
/tabislation="mespaidirgepeptcapsaclppnssawfpgwaepdsngsags
EDAQLEPAHISPAIDVITAVYSVVFVVGLVGNSLVMFVLIRYTKWKTATWLYIFNLA
LADALVTTMEFOSTVYLMNSWPFGDVLCKIVLSIDYYNWHTS:ETLTMASVDRYLAV
CHPVKALDFRIPLKAKIINICIWLLSSSVGISAIVLGGTKVREDVDVIECSLQFPDDD
YSWWDLFMKICVFIFAFVIPVLILIVCYTLMILKLKSVRLLSGSREKDRNLRRITRLV
LVVVANFVVCWTPHIFITLVEALGSTSKTMALSSYYFCIALGYTNSSLNPILYAFLD
ENFKRCFRDFCFPLKMMMERQSTSRVRNIVQDPAYLRDIDGMNKFV"
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/tissue_type="placenta"
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/clone="phK1.3"
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                                                                                                                                                                                                                                                                                                                                                                           Submitted (07-DEC-1993) Guo-xi Xie, Mental Institute, The University of Michigan, 205 Arbor, MI 48109-0720, USA
                                                                                                                                                                                                                                                                                                                                                                                                                                             Xie,
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Eukaryotae; mitochondrial eukaryotes; Metazoa; Chordata;
Vertebrata; Eutheria; Rodentia; Hystricognathi; Caviidae
1 (bases 1 to 1733)
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/picduct="kappa opicid receptor"
//db_xref="pid:9476107"
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LVVVAVFIICWFPTAFYIPYLIIIVZALGSTSHSTAALSSYYECIALGYTMSSHNPILYAFLD
ENFKRCFRDFCFPIKMEMERGSTSRVRNTVQDPAYMRNVDGVKPV"
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                                                                                                                                               /function="G protein-coupled seven-helix high-affinity to dynorphin A"
                                                                                                                                                                                                                                                  /sex="male"
/tise...
                                                                                                                                                                                                                                                                                              /strain="Hartley"
/clone="gpKlOR"
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                                                                                                                                                                                                                              /tissue_type="brain"
/dev_stage="adult"
                                                                                                                                                                                                                                                                                                                              'organism="Cavia
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longer of two transcripts.
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/db_xref="kappa opioid receptor"
/db_xref="pii:9348249"
/db_xref="pii:9348249"
/translation="MessPointreDPGPTCSPSACLLPNSSWEPNWAESDSNGSVGS
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LADALVTTIMPSQSAVVLMNSWEFGDVLCKIVISIDYYMMFTSIFTILMMSVDRVIAV
CHPVKALDETPPLKAKIINICIMLAASSVGISAIVLGGTKVREDVDVIECSLOFPDDE
YSWMDLFMKICVFVFAFVIPVLIIIVCTTLMIERLKSVELGGSEKDDMLRRITIKIV
LVVVANTIICWTPJHIFILVEALGSTSAALSSYYECIALGTTNSSLNPVLYAFLD
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/tissue_type="brain"
/tissue_lib="Clontech #M
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Pred. No. 0.00e+00;
0; Mismatches 112;
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Rat kappa opioid ro
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Molecular cloning of a rat kappa opioid receptor similarities to the mu and delta opioid receptors
Biochem, J. 295, 625-628 (1993)
                                                                                                                                                                                                                                                                                                                                                                  kappa opioid receptor; (Rattus norvegicus whole Rattus norvegicus
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/evidence=experimental
/product="Kappa opioid receptor"
/db_xref="piD:g409237"
/translation="MESPIQIFRGEPGFTCAPSACLLPNSSSWEPNWAESDSNGSVGS
/translation="MESPIQIFRGEPGFTCAPSACLLPNSSSWEPNWAESDSNGSVGS
EDQQLEPAHISPALPVIITAVYSVVFVVGLVGNISLVMFVGIRYTKMKTATNIYIFNLA
LADALVTTMFPQSAVTIMNSWEPGDVLCKIVISIDYYNMFTGSIFTILMMSVDRYIAV
CHPVKALDFFTPLKAKIINICIWLLASSVGISAIVLGGTKVREDVDVLECSLQFEDED
YSWWDLFMKICVFVFAFVIPVLIIVCXTLMILTALKSVFLLSGSREKDRNLRRITKLV
LVVVAVFIICWTPIHFTLVEALGSTSHSIAVLSSYVFCIALGYTNSSLNPVLXAFLD
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/tissue_type="whole brain"
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                                                                         atcctgcttccatgagggatgtggggatga---ataagccagtatgactagtcatgg
                                                                                                                              tocccattaagatgcgaatggagcgccagagcacaaacaggttagaaacacagttcagg
                                                                                                                                                                                        atcctgttctctatgcctttcttgatgaaaacttcaagcggtgtttttagggacttctgct
                                                                                                                                                                                                                                CAGCTGCTCTCCCAGCTATTACTTCTGCATCGCCTTAGGCTATACCAACAGTAGCCTGA
                                                                                                                                                                                                                                                  cagctgtcctctctagctattacttctgcattgccttgggttatacccaacagcagcttga
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                                                                                                               TTCCACTGAAGATGAGNATGGAGCGCNAGAGCACTAGCAGAGTCCGAAATACAGTTCAGG
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                                                                                                                                                                                                                                                                                                                                                  ATUNCAACCTGCGTAGGATCACCAGACTGGTCCTGGTGGTGGTGGCAGTCTTCGTCGTCT
                                                                                                                                                                                                                                                                                                                                                                   accgaaatctccgccggatcaccaagctggtgctggtagtggttgcagtcttcatcatct
                                                                                                                                                                                                                                                                                                                                                                                                                                    acaccctgatgatcctgcgcttgaagagtgtccggctcctctcgggctctcgagagagg
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                                                      ATCCTGCTTACCTGAGGGAGATCGATGGGATGATAAAACCAGTATGACTAGTCGTGG
                                                                                                                                                                         ATCCCATTCTCTACGCCTTTCTTGATGAAAACTTCAAGCGGTGTTTCCGGGACTTCTGCT
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                                                           CGTCATCTGTTGGCATCTCTGCAATAGTCCTTGGAGGCACCAAAGTCAGGGAAGGTGTCG
                                                                            CTTTGGACTTCCGCACACCCTTGAAGGCAAAGATCATCAATATCTGCATCTGGCTGCTGT
                                                                                                                                                                   ctttggatttccgaacacctttgaaagcaaagatcatcaacatctgcatttggctactgg
                                                                                                                                                                                                        TCTTCACCTTGACCATGATGAGCGTGGACCGCTACATTGCCGTGTGCCACCCCGTGAAGG
                                                                                                                                                                                                                                  tattcaccttgaccatgatgagtgtggaccgctacattgccgtgtgccaccctgtgaaag
                                                                                                                                                                                                                                                                                TTGGGGGATGTGCTGCAAGATAGTAATTTCCATTGATTACTACAACATGTTCACCAGCA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Molecular cloning and expression of a rat k Biochem. J. 295, 629-633 (1993)
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Liu-Chen,L.-Y.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Rattus norvegicus
Eukaryotae; mitochondrial eukaryotes; Metazoa;
Vertebrata; Eutheria; Rodentia; Sciurognathi; N
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Rattus norvegicus (strain Sprague-Dawley) adult brain (striatum) cDNA to mRNA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   G-protein coupled receptor; kappa opioid receptor;
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llarity 87.1%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /product="kappa opioid receptor"
/db_xref="pin:q425189"
/db_xref="pin:q425189"
/tanslat.ton="messpiqiergepoptcapsacilpnsssmepnmaesdsngsvgs
EDQQLEPAHISPAIPVIITAVYSVVFVVGLVGNSLVMFVIIRYTKMKTATNIYIFNLA
LADALVTTTMPFQSAVYLMNSMFFGDVLCKIVISIDYYMMFTSIFTLEMMSVDRYIAV
CHPVKALDFRIPLKAKIINICIWLLASSVGISAIVLGGTKVREDVDVLECSIQFFDDL
YSWWDLFMKICVFVFAFVIPVLIIIVCYTLMILRLKSVRLLSGSREKORNLRRITKLV
LVVVAVFIICWIPHHFILVEALGSTSHSTAVLSSYYFCIALGYTNSSLNFVLYAFLD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /gene="KOR-1"
519 c
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/tissue_lib="lambda gt10"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /strain="Sprague-Dawley"
/dev_stage="adult"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             'organism="Rattus norvegicus"
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Pred. No. 0.00e+00;
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RESULT 10
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Best Local Similarity 87.1%;
Matches 785; Conservative
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TITLE
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                               tattcaccttgaccatgatgagtgtgggaccgttacattgccgtgtgccaccctgtgaaag
                                                                                           TTGGGGATGTGCTGCAAGATAGTAATTTCCATTGATTACTACAACATGTTCACCAGCA
                                                                                                                   ttggagatgttctgtgcaagattgtcatttccattgactactacaacatgtttaccagca
                                                                                                                                                                                 CTTTAGTTACTACCATGCCCTTTCAGAGTACGGTCTACTTGATGAATTCCTGGCCTT
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Eukaryotae; I
Vertebrata;
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g403486
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Meng,F., Xie,G.-X., Thompson,R.C.,
Watson,S.J. and Akil,H.
Cloning and pharmacological charact
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Direct Submission
Submitted (05-AUG-1993)
University of Michigan,
48109, USA
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/product="rat kappal opioid receptor"
/db_xref="pl0:9403487"
/db_xre
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/clone="rKIOR"
/clone '''
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257..1399
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/sex="male and female"
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                                                                                                                                     Eukaryotae; mitochondrial eukaryotes; Metazoa; Chordata; Vertebrata; Eutheria; Primates; Catarrhini; Hominidae; H 1 (bases 1 to 455)
Yasuda, K., Espinosa, R. III., Takeda, J., Le Beau, M.M. and
                                                                                                                                                                                                  g416143
OPRKI gene; kappa opioid receptor.
Homo sapiens (tissue library: Stratagene placenta DNA.
Homo sapiens
                                                                                                                                                                                                                                                                                complete exon.
L26079
                                                                                                          8q11
                                                                                                                                                                                                                                                                                                              HUMOPRKIA 455 bp
Homo sapiens (clone )
                                                                                           Unpublished (1994)
                                                                                                                          Localization of kappa opioid
                                                             Location/Qualifiers
/sex="male"
/tissue_type="placenta"
/tissue_lib="Stratagene 946203;
                                                /organism="Homo sapiens'
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                                                                                                                          Takeda, J., Le Beau, M.M. and Bell, G.I. d receptor gene to human chromosome ba
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Liu,H.C., Lu,S., Augustin,L.B., F
and Wei,L.N.
Cloning and promoter mapping of monoton and promoter mapping and promoter mapping of monoton and promoter mapping and promoter m
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAGATCATCAATATCTGCATCTGGCTGCTGTCGTCATCTGTTGGCATCTCTGCAATAGTC
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Eukaryotae;
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kappa opi
$77872
$998531
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larity 98.1%;
Conservative
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                                                                   join(S77868:537.1894,S77869:371.723,289..821)
join(S77868:913.1894,S77869:371.723,289..821)
join(S77868:913.1894,S77869:371.723,289..821)
join(S77868:1638.1894,S77869:371.723,289..821)
join(S77868:1638.1894,S77869:371.723,289..821)
/note="Description: Rappa opioid receptor, KOR:
mismatch(365[E-VQ]); This sequence comes from Figure Author-given protein sequence is in conflict with conceptual translation"
/product="kappa opioid
/db_xref="PID:g998532"
                                                /codon_start=1
                                                                                                                                                                                                                                                                                                                                    location/Qualifiers
                                                                                                                                                                                                                                                                                    organism="Mus sp."
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                                                                                                      cacagttcaggatcctgcttccatgag--agat-gtgggagggatgaataagccagtatg
                                                                                                                                                                                  ggacttctgcttccctattaagatgcgaatggagcgcagagcaccaatagagttagaaa
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EDQQLESAHISBAIFVIITAVYSVVFVVGLVQNSLVMFVIIRYTKMKTATNIXIFNLA
LADALVTTMFPGSAVYLMNSWPFGDVLCKIVISIDYVMFSIFTLIMMSVDRYIAV
CHPVRALDFRFPLKAKIINICIMLLASSVGISAIVLGGTKVREDVDVLIECSLQFPDE
YSWWDLFMKICVFVFAFVIPVLIIIVCYTLMIRTKSVFLLSGSREKDRNLRRITKLY
LVVVAVFICOFFFFFILYEALGSTSHSTAALSSXYFCIALGXTNSSLNPVLYAFLD
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1. No. 0.00e+00;
Mismatches 77;
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REFERENCE
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TITLE
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ACCESSION
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                                                                                                                                ORGANISM
         JOURNAL
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l (bases 1 to 638)
Nishi,M., Takeshima,H., Mori,M., Nakagawara,K. and Takeuchi,T.
Structure and chromosomal mapping of genes for the mouse
kappa-opioid receptor and an opioid receptor homologue (MOR-C)
Biochem. Biophys. Res. Commun. 205 (2), 1353-1357 (1994)
                                                                                                                                                             g643595
G-protein associated; kappa opioid receptor;
peptides-binding; transmembrane protein.
3 of 3
                                                                                                                                Mus musculus
                                                                                  Murinae; Mus.
                                                                                               Eukaryotae; mitochondrial eukary
Vertebrata; Eutheria; Rodentia;
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Submitted (28-May-1994) to DDBJ by Submitted (28-May-1994) to DDBJ by Hiroshi Takeshima
Department of Neurochemistry Tokyo Institute of Psychiatry 2-1-8 Kamikitazawa, Setagaya-ku Tokyo 156
atgactagtcgtgga 571
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//db_xref="pid:g80876"
//db_xref="pid:g80876"
//translation="MESPIQIFRGDPGPTCSPSACLLPNSSWFPNWAESDSNGSVGS
EDQQLESAHESPALPULTAVESVVETVETVETVETVETVETVETAMSVDRYIAV
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LADALVTTIMPFQSAVYLMNSWFFGDVLCKIVISIDYYNFITSIFTLTMMSVDRYIAV
LADALVTTIMPFQSAVYLMNSWFFGDVLCKIVISIDYYNFITSIFTLTMMSVDRYIAV
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T12550 standard; cDNA;
T12550;
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This sequence codes for the human kappa opioid receptor and was obtained from two overlapping cDNA fragments isolated from a human placental cDNA library. The fragments were amplified from the library using PCR primers based on the sequence of human genomic clones which hybridised with a murine delta receptor cDNA probe. Nucleotide probes derived from the kappa opioid receptor coding sequence are useful for diagnosis of neurological, cardio-vascular and psychiatric disorders associated with opioid
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Human; kappa opioid receptor;
neurology; diagnosis; ds.
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Claim 3; Page 13-15;
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Polymorlectides and peptides derived from opioid receptor polypeptides - for use in therapeutic compositions and in screening assays for useful drug substances.

Claim 10; Page 207-211; 300pp; English.

CC The nucleotide sequence of the novel mouse kappa opioid receptor gene compositions are based on the conserved sequences present in the gene was isolated from a mouse brain cDNA library using a composition of the primers are based on the conserved sequences present in the conserved sequences present in the second and third transmembrane domains of somatistatin (SRIF) receptor compositives SSTR1, SSTR2 and SSTR3. The 1.2 kb PstI fragment from the mouse subtypes SSTR1, SSTR2 and SSTR3. The 1.2 kb PstI fragment from the mouse promoter based expression vector pCMV-6b. The resultant construct composition receptor clone, lambda msl-1, was subcloned into the CMV promoter based expression vector pCMV-6b. The resultant construct conserved thus produced are useful for the development of novel assays designed to select or improve substances, capable of interacting with the opioid receptor proteins, for use in diagnosis, drug design and therapeutic
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20-MAY-1993; US-066296.

30-JUL-1993; US-100694.

05-NOV-1993; US-147592.

(ARCH-) ARCH DEV CORP.

Bell GI, Reising T, Yas
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Mouse kappa opioid receptor mORK1 cDNA.
Mouse; kappa; delta; mu; opioid receptor; brain;
transmembrane domain; somatostatin; receptor; hum
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Claim 2. pr
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Sequence 2481 BP; 629 A; 588 C; 544 G; 720 T;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mammalian kappa opioid receptor protein Mammalian kappa opioid receptor; mouse camplification; primer; rat; probe; E.col
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09-JUL-1993; JP-170591
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probe; E.coli; RT-PCR; hypnotic compound;
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Pred. No. 0.00e+00;
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23-MAR-1995.
13-SEP-1994; U
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New nucleic acid encoding new human mu opioid receptor - and related vectors, transformed cells, antibodies etc., useful in diagnosis, treatment and drug screening.

Claim 5; Page 208-210; 266pp; English.

A cDNA library constructed from human caudate nucleus mRNA was screened with rat mu opioid receptor cDNA under conditions of low stringency. One positive clone included the sequence given 289226, encoding a mu opioid receptor MOR (R71964). The cDNA is used for prodn. of recombinant MOR, in gene therapy, etc. sequence 1610 BP; 384 A; 467 C; 359 G; 400 T;
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                                                 TTTGGGGATGTGCTAGGATAGTAATTTCCATTGATTACTACAACATGTTCACCAGC
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30-TAN-1995.
28-JAN-1994; US-188275.
28-JAN-1994; US-188275.
(USSH) US DEPT HEALTH & HUMAN
(USSH) US SEC DEPT HEALTH.
Johnson PS, Persico AM, Uhl G
WPI; 95-275452/36.
P-PSDB; R76780.
P-PSDB; R/b/bu.

New DNA encoding human mu opiate receptor

cpds. for activity as opiate agonists or antagonists

Claim 4; Page 24-25; 49pp; English.

hMOR cDNA was obtd. from a human cerebral cortical cDNA library
screened with fragments of a rat mu opiate receptor. Cloned hMOR
DNA can be used as probes to examine the structure and function of
hMOR genes or to screen individuals for susceptibility to drug

From Profession in e.g. COS cells allows production of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TIT 6
Q93102;
Q93102;
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Human mu opiate receptor; hMOR; opiate receptor; abuse; analgesic; ds.
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RESULT ID Q7
AC Q7
DT 15
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CW M6
OS R7
FH C1
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Best Local S
            Q79199 standard; cDNA; 2070
Q79199;
19-APR-1995 (first entry)
Rat mu-subtype opioid recept
Mu-subtype opioid receptor;
Rattus rattus.
Key Location/Qua
CDS 83..1154
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Best Local
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R65188 is the rat mu-subtype opioid receptor protein purified from rat brain membranes, with biotinyl-b-endorphin (R56666) as its ligand. It is encoded by the nucleotide sequence Q79199 which was synthesised using Q71022 and Q71023 as PCR primers. R65188 is useful for identifying other receptor subtypes, for screening new opioid ligands, and for studying mechanisms of opioid action, e.g. drug addiction.

Sequence 2070 BP; 526 A; 564 C; 423 G; 557 T;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 26-FEB-1993; US-026140.
(AMCY ) AMERICAN CYANAMID
COIDEIT MJ, EDDIER CM, S
WEI; 94-265963/33.
P-PSDB; R65188.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /product= Mu-subtype_opioid_receptor EP-612345-A. 31-AUG-1994.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           09-FEB-1994; 101968
26-FEB-1993; US-026
(AMCY) AMERICAN CY
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                           acatttcagaccgtttcctggcacttctgcattgctttgggttacacgaacagctgcctg
                                                                                      tgctggacccccatccacatctacgtcatcatcaaagcgctgatcacgattccagaaacc
                                                                                                                                       TACACCCTGATGATCCTGCGTCTCAAGANNGTCCGGCTCCTTTCTGGCTCCCGAGAGAAA
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   ACAGCTGCTCTCCAGCTATTACTTCTGCATCGCCTTAGGCTATACCAACAGTAGCCTG
                                                              TGCTGGACTCCCATTCACATATTCATCCTGGTGGAGGCTCTGGGGAGCACCTCCCACAGC
                                                                                                                       SATNNCAACCIGOGTAGGATCACCAGACIGGTCCIGGTGGTGGTGGCAGTCTTCGTCGTC
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Shieh
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Pred. No. 3
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RESULTING AND DEPTH OF SERVICE SERVICE
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13-SEP-1994;
13-SEP-1993;
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Disclosure: Page 190-194; 266pp; Engelish.
A 365 bp fragment of the mouse delta opioid receptor was used to soreen a rat brain cDNA library under low stringency conditions.
One positive clone included the sequence given in 088222, encoding mu opioid receptor, MOR-1 (R71964). MOR-1 was stably expressed in transfected CHO Cells.
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Mu opioid receptor; MOR-1;
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Disclosure; Page 199-203; 266pp; English.
A 365 bp fragment of the mouse delta opioid receptor was used to screen a rat brain cDNA library under low stringency conditions. One positive clone included the sequence given in Q89222, encoding mu opioid receptor, MOR-1 (R71964). Sequence analysis revealed an alternative reading frame (Q89223) encoding a lternative reading franscription regulatory protein (R71965). sequence 1618 BP; 390 A; 486 C; 370 G; 372 T;
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New nucleic acid encoding new human mu opicid receptor - related vectors, transformed cells, antibodies etc., uses
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13-AUG-1993; U07665.
13-AUG-1992; US-29200.
(REGC ) UNIV CALIFORNIA.
Edwards RH, Evans CJ, K
WPI; 94-088099/10.
P-PSDB; R48629.
DNA encoding opioid receptors and antibodies against this receptor - used to express and locate these receptors, and screen cpds. for opioid (ant)agonist activity

Claim 1; Fig 5; 74pp; English.

A cDNA library was constructed using mRNA isolated from the NG109-15 cell line. A single clone, named the DOR-1 clone was isolated. Comparisons with known sequences in GenBank showed highest homology between DOR-1 and the G-protein-coupled somatostatin receptor. Other features of the DOR-1 clone AA sequence deduced from the cDNA sequence include 3 consensus glycosylation sites at residues 18 and
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Sequence of murine
Opioid receptor; mo
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Matches
Q567C5 standard; cDNA
Q567O5;
15-SEP-1994 (first e
Partial sequence of t
(MOR-1, MOR-lalpha)
Opioid receptor; morp
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   receptor; morphine; opiate;
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ilarity 70.6%;
Conservative
                                                                                    cDNA;
                                    entry)
the murine
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                                                                                       ВP
                                     mu-receptor
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d. No. 1.81e-159;
Mismatches 217;
                                       clone
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Best Local S
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W09404552-A.
03-MAR-1994.
13-AUG-1993; U07665.
13-AUG-1992; US-929200.
(REGC) UNIV CALLFORNIA.
Edwards RH, Evans CU, K.
WPI; 94-083099/10.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DNA encoding opicid receptors and antibodies against this receptor - used to express and locate these receptors, and s receptor - opicid (ant)agonist activity grample; Fig 9; 74pp; English.

A cDNA library prepd. from mouse brain was probed using DOR-A cDNA probe. One clone was recovered and sequenced. T clone, designated DOR-2, represented a new gene. DOR-2 hybrito a different pattern of heuorns than did DOR-1 and showed labeling of the striatum. The identity of DOR-2 (mMOR-1) as
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      a mu receptor was
Sequence 1981 B
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                                                                                                                                       GATNNCAACCTGCGTAGGATCACCAGACTGGTCCTGGTGGTGGTGGCAGTCTTCGTCGTC
                                                                                                                                                       tatggactgatgatcttacagctcaagagtgtccgcatgctgtcgggctccaaagaaaag
                                                                                                                                                                                                                                                                                                           GATGTCATTGAGTGCTGCTTGCAGTTCCCAGATGATGACTACTCCTGGTGGGACCTCTTC
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aacccagttctttatgcgttcctggatgaaaacttcaaacgatgttttagagagttctgc
                           ACAGCTGCTCTCCAGCTATTACTTCTGCATCGCCTTAGGCTATACCAACAGTAGCCTG
                                              actttccagactgtttcctggcacttctgcattgccttgggttacacaaacagctgtctg
                                                                                  TGCTGGACTCCCATTCACATATTCATCCTGGTGGAGGCTCTGGGGGAGCACCTCCCACAGC
                                                                                                tyctgyaccccatccacatctatytcatcatcaaaycactyatcacgattccagaaacc
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 h 26.7%;
Similarity 69.5%;
546; Conservative
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Pred. No. 1.
0; Mismatc
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. No. 1.81e-159;
Mismatches 231;
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                                                                                                                                                                                                                                                                                                                                                                                                   pr polypeptides - for use in therapeutic compositions and in screening assays for useful drug substances.

Streening assays for useful drug substances.

Streening assays for useful drug substances.

Streening assays for useful drug substances.

Common the page 215-221; 300pp; English.

Common the primer streening the novel mouse delta opioid receptor gene moral. The gene was isolated from a mouse brain cDNA library using a composition of the primers are based on the conserved sequences present in the second and third transmembrane domains of somatostatin (SRIF) receptor compose delta opioid receptor clone, lambda msl-2, was subcloned into the compose delta opioid receptor clone, lambda msl-2, was subcloned into the compose delta opioid receptor clone, lambda msl-2, was subcloned into the compose encoding the opioid receptor can be used to produce complete, thus produced are useful for the development of novel assays designed to calcate or improve substance canable of interacting with the opioid to conside the opioid receptors of the development of novel assays designed to calcate or improve substance canable of interacting with the opioid.
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                                                                                                                                                                                                                                                                                                                                                                              select or improve substances, capable of interacting with the opioid receptor proteins, for use in diagnosis, drug design and therapeutic
                                                                                                                                                                                                                                                                                                                                                          sequence
                                                                                                                                                                                                                                                                                                                                                                         applications
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Bell GI, Reisine WPI; 95-022804/03. P-PSDB; R67670.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Mouse delta opioid receptor mORD1 cDNA. Mouse; kappa; delta; mu: opioid 7 -- transmont.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Polynucleotides and peptides derived from opicid receptor polypeptides - for use in therapeutic compositions and in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     20-MAY-1993;
30-JUL-1993;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mouse; kappa; delta; mu; opioid receptor; brain; primer; PCR; transmembrane domain; somatostatin; receptor; human; expressions;
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Q75927 standard;
Q75927;
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           480
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30-JUL-1993; US-100694.
05-NOV-1993; US-147592.
(ARCH-) ARCH DEV CORP.
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                                                                                                                                                                                                                                                                                                            Local
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                                                    99cgagctgctgtgcaaggctgtgctctccattgactactactacaacatgttcactagcatc
                                                                                                                                                                              ctggccaccagcacgctgcccttccagagcgccaagtacttgatggaaacgtggccgttt
ctggacttccggacaccagccaaggccaagctgatcaatatatgcatctgggtcttggct
                               TTCACCTTGACCATGATGAGCGTGGACCGCTACATTGCCGTGTGCCACCCCGTGAAGGCT
                                                                                             GGGGATGTGCTGTGCAAGATAGTAATTTCCATTGATTACTACAACATGTTCACCAGCATC
                                                                                                                                                         TTAGTTACTACAACCATGCCCTTTCAGAGTACGGTCTACTTGATGAATTCCTGGCCTTTT
                                                                                                                                                                                                                       TACACAAAGATGAAGACAGCAACATTTACATATTTAACCTGGCTTTGGCCAGATGCT
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                                                                                                                                                                                                                                                                                                                                                        2272 BP;
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70.6%;
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                                                                                                                                                                                                                                                                                                       No. 1.
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I.81e-159;
tches 217;
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  Query Match
Best Local Similarity
                                         Q56656 standard; c
Q66656;
19-JAN-1995 (fir:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /rtag= a
/product= opioid_receptor
FR2697850-A.
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Murine delta opioid receptor coding sequence.
delta opioid; enkephalin; receptor; mouse; murine; analgesic;
drug addiction; neurological disorder; psychiatric; disorder;
cardiovascular disorder; ds.
                                                                                                                                                                                                                                                                                                     New nucleic acid encoding opioid receptor - and related polypeptide, antisense nucleic acid, probes, recombinant and ligands, useful in diagnosis and treatment of e.g. neurological disorders
                                                                                                                                                                                                                                                                                                                                                                                                                                                         10-NOV-1992; FR-013526
(UYST-) UNIV PASTEUR S:
Kieffer B;
                                                                                                                                                                                                                                                                                                                                                                                                             P-PSDB; R66503
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10-NOV-1992; 013526.
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No. 1.16e-147;
                    Length 2216
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                                                                        13-AUG-1993; U07665.
13-AUG-1992; US-992200.
(REGC) UNIV CALLIFORNIA.
Edwards RH, Evans CJ, K
WPI; 94-083099/10.
                                                                                                                                               Homo sapiens.
W09404552-A.
W3-MAR-1994.
13-AUG-1993; U
                                                                                                                                                                                                                                                                                         IT 14
05703; standard; DNA; 829 BP.
056703;
15-SEP-1994 (first entry)
Partial sequence of the human mu opioid
genomic clone H20 (MORa).
DNA encoding opicid receptors and antibodies receptor - used to express and locate these cpds. for opicid (ant)agonist activity
                                                                                                                                                                                                                                                                       Opioid receptor; morphine; opiate;
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To isolate opiate receptor genomic clones, 300,000 human genomic clones and a similar number of mouse genomic clones were probed with the 1.1 kb mouse delta opioid receptor clone DOR-1 Pst/XbaI fragment. One mouse clone and three human genomic clones were isolated. The 3 human clones had very different EcoRI patterns which indicated that three different genes were represented by the human genomic clones which were designated H3, H14 and H20, H20 maps to chromosome 6. It encodes the human mu receptor. In addition, H20 appears to contain a CACACA marker (Q56704) which provides a means to track the inheritance of this gene.

Sequence 829 BP; 182 A; 205 C; 134 G; 214 T;
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D1 03-MAR-1993; UU-7665.

PR 13-AUG-1993; UU-7665.

PR 13-AUG-1992; UU-799200.

PA (REGC) UNIV CALLFORNIA.

PI Edwards RH, Evans CJ, Kaufman D, Keith DE;

PR WPI; 94-083099/10.

PT DNA encoding optiod receptors and antibodies against this

PI ceceptor - used to express and locate these receptors, and screen

PI cpds. for opioid (ant)agonist activity

PS Example; Pig 8b; 74pp; English.

CC To isolate opiate receptor genomic clones, 300,000 human genomic

CC clones and a similar number of mouse genomic clones were probed

CC with the 1.1 kb mouse delta opioid receptor clone DOR-1 Pst/XbaI

CC fragment. One mouse clone and three human genomic clones were

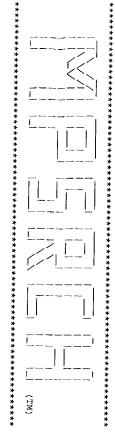
CC which indicated that three different genes were represented by the

CC human genomic clones which were designated H3, H14 and H20. H14 maps

CC to chromosome 8. It encodes the human kappa opioid receptor.

SQ Sequence 2447 BP; 683 A; 512 C; 498 G; 747 T;
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Partial sequence of the human kappa opioid receptor opioid receptor; morphine; opiate; ss.
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Similarity 100.0%;
245; Conservative
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Pred. No. 1.40e-145;
0; Mismatches 0;
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Release 2.1D John F. Collins, Biocomputing Research Unit. Copyright (c) 1993, 1994, 1995 University of Edinburgh, U.K. Distribution rights by Intelligenetics, Inc.

MPsrch_pp protein - protein database search, using Smith-Waterman algorithm

Tabular output not generated. Tue Aug 26 14:52:25 1997; MasPar time 20.38 Seconds 418.164 Million cell updates/sec

Title:

Description: Perfect Score:

Sequence: >US-08-292-694A-12 (1-295) from US08292694A.pep 2229 1 YTKMKTATNIYIFNLALADA......NTVQDPAYLREIDGMMNKPV 295

Scoring table: PAM 150 Gap 11

Searched: 91006 segs, 28888923 residues

Post-processing: Minimum Match 0% Listing first 45 summaries

Database:

pir51
1:ann1 2:ann2 3:ann3 4:ann4 5:unann1 6:unann2 7:unann3
8:unann4 9:unann5 10:unann6 11:unann7 12:unann8
13:unann9 14:unann10 15:unenc 16:unrev

Statistics: Mean 46.216; Variance 117.646; scale 0.393

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

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ALIGNMENTS

Best Local Similarity 97.6%; Pred. No. Matches 288; Conservative 1; Misma 87 ytkmktatniyifnlaladalvtttmpfqstvy	#domain transmembrane	##status preliminary ##molecule_type mRNA ##residues 136-279 ##label WAN ##cross-references GB:L36130 This receptor preferentially b DS receptor; transmembrane; E	##residues 1-380 ##label MAN ##experimental_source placenta NCE Wang, J.B.; Johnson, P. tthors Wang, J.B.; Johnson, P. uurnal J. Biol. Chem. (1994) ; ttle Human kappa opiate rece elevates dynorphin's cession A55354	JC2338; A55354 JC2338 MADSSON, E.; Bare, Biochem. Biophys. F Isolation of a huma placenta. JC2338 _TO2338 _TYPE mRNA	#cype code recept ame Homo so #sequer 1996
cal Similarity 97.6%; Pred. No. 0.00e+00; 288; Conservative 1; Mismatches 5; Indels 1; Gaps ytkmktatniyifnlaladalvtttmpfqstvylmpswpfqdvlckivisidyynmftsi 1.	transmembrane #status predicted #label TM1\ transmembrane #status predicted #label TM2\ transmembrane #status predicted #label TM3\ transmembrane #status predicted #label TM4\ transmembrane #status predicted #label TM5\ transmembrane #status predicted #label TM6\ transmembrane #status predicted #label TM6\ transmembrane #status predicted #label TM7 #molecular-weight 42659 #checksum 8304	preliminary e_type mRNA 136-279 ##label WAN eferences GB:L36130 receptor preferentially binds to dynorphins. receptor; transmembrane protein	1-380 ##label MAN ttal Source placenta A55354 Wang, J.B.; Johnson, P.S.; Wu, J.M.; Wang, W.F.; Uhl, G.R. Wang, J.B.; Johnson, P.S.; Source place in the second extracellular loop elevates dynorphin's affinity for human mu/kappa chimeras a55334	JC2338; A55354 JC2338 MANSSON, E.; Bare, L.; Yang, D. MANSSON, E.; Bare, L.; Yang, D. Biochem. Biophys. Res. Commun. (1994) 202:1431-1437 Isolation of a human kappa opioid receptor cDNA from placenta. placenta. JC2338 JC2338	#type complete kappa opioid receptor - human #formal_name Homo sapiens #common_name man 20-Feb-1995 #sequence_revision 20-Feb-1995 #text_change 05-Jan-1996

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Local Similarity 97.6%;
hes 288; Conservative
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#length 380 #m
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Life Sci. (1995) 56:201-207
Cloning of a human .kappa. opioid receptor from
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kappa opioid receptor - human
#formal_name Homo sapiens #common_name man
02-Jul-1996 #sequence_revision 02-Jul-1996
A55259
A55259
Xie, G
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kappa opioid receptor - guinea pig
dynorphin receptor
#formal_name Cavia porcellus #common_name guinea pig
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Pred. No. 0.00e+00;
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   Α.;
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##residues 1-380 ##label LIU
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                                                                   This receptor exists in different areas of the central and peripheral nervous systems, and mediates many physiological pharmacological effects of opiates and opioid compounds.
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Similarity 94.6%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A48227 #type complete
kappa opioid receptor 1 - mouse
#formal_name Mus musculus #common_name house mouse
26-May-1994 #sequence_revision 26-May-1994 #text_change
27-Oct-1995
                                                                                                                                                                                                                                                                                                                                                                                              Yasuda, K.; Raynor, K.; Kong, Reisine, T.; Bell, G.I.
Proc. Natl. Acad. Sci. U.S.A.
Cloning and functional compari
receptors from mouse brain.
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                                                                                                                                                                                                                          Liu, H.C.; Lu, S.; Augustin, L.B.; Felsheim, R.F.; H.C.; Loh, H.H.; Wei, L.N.
Biochem. Biophys. Res. Commun. (1995) 209:639-647 Cloning and promoter mapping of mouse kappa opioid
                                                                                                                                                                                           gene.
JC4138
brain; G protein-coupled receptor; glycop peptide; phosphoprotein; transmembrane
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Pred. No. 0.00e+00;
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l Similarity 92.9%;
274; Conservative
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Blochem. J. (1993) 295:625-628
Molecular cloning of a rat kappa opioid receptor reveals
sequence similarities to the mu and delta opioid receptors.
$38825
                                                                                                                                                                                                            Minami, M.; Toya, T.; Katao, Y.; Mae)
Onogi, T.; Kaneko, S.; Satoh, M.
FEBS Lett. (1933) 329:291-295
Cloning and expression of a cDNA for
A48789
                                              S39015
                                                                    Biochem. J. (1993) 295:629-633 Molecular cloning and expression
                                                                                                      Li, S.; Zhu, J.
B.; Liu-Chen,
                                                                                                                                       $39015
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kappa opioid receptor - rat
formal_name Rattus norvegicus #common_name Norway rat
10-Dec-1993 #sequence_revision 19-Oct-1995 #text_change
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S36143; S38825; S36102; S39015; A48789
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13; Mismatches 7
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#introns 86/2; 204/1
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#journal Proc. Natl. Acad. Sci. U.S.A. (1993) 90:9954-9958
#title Cloning and pharmacological characterization of a
#cross-references_MUID:94052210
#cross-references_MUID:94052210
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# length 380 #molecular-weight 42688 #checksum 9
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Local Similarity 92.5%;
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1 Similarity 92.5%;
273; Conservation
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                                                                                                                                                                                                                                                                                                                                                                                                                                                        JC2434 #type complete
kappa-opioid receptor - mouse
#formal_name Mus musculus #common_name house mouse
21-Feb-1995 #sequence_revision 05-Apr-1995 #text_change
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Pred. No. 0.00e+00;
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#cross-references MUID:95377399

#accession I49300
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#title Genomic structure analysis of promoter sequence opioid receptor gene.
#cross-references_MUID:94377496
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                                                                                                                                                                                                                                                                                                                 ##residues 1-398 ##label RE2
##cross-references EMBL:U26915; N
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ##cross-references EMBL:U10561;
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NCE 148665
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                      156
                                                                                                                                                                                                                                                                                                                                                   ##molecule_type mRNA
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ftlctmsvdryiavchpvkaldfrtprnakivnvcnwilssaiglpvmfmattkyrgg-s 214
                                                                                       ytkmktatniyifnlaladalatstlpfqsvnylmgtwpfgnilckivisidyynmftsi 155
                                                          YTKMKTATNIYIFNLALADALVTTIMPFQSTVYLMNSWPFGDVLCKIVISIDYYNMFTSI
                                                                                                                                 190;
                                                                                                                                                  68.4%;
Similarity 65.7%;
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mu opioid receptor - mouse
#formal_name Mus musculus #common_name house mouse
08-Dec-1995 #sequence_revision 08-Dec-1995 #text_change
15-Oct-1996
A57510; I48665; I49300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    J. Biol. Chem. (1990) 2/0:100/. 100: Characterization of the murine mu opioid receptor
                                                                                                                                                                                                       alternative splicing; G protein-coupled receptor; glycoprotein; transmembrane protein #length 398 #molecular-weight 44421 #checksum 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                          Rossi, G.C.; Pan, Y.X.; Brown, G.P.; Pasternak, G.W. FEBS Lett. (1995) 369:192-196
Antisense mapping the MOR-1 opioid receptor: evidence alternative splicing and a novel morphine-6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Kaufman, D.L.; Keith Jr., D.E.; Anton, B.;
Magendzo, K.; Newman, D.; Tran, T.H.; Le
Xia, Y.R.; Lusis, A.J.; Evans, C.J.
J. Biol. Chem. (1995) 270:15877-15883
                                                                                                                                                                                                                                                              gene name
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Min, B.H.; Augustin, L.B.; Felsheim,
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                                                                                                                               Score 1524; DB 14; Length 398; Pred. No. 7.35e-223; 47; Mismatches 48; Indels 4
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                                                                                                                                                                                                                                                                                                                 NID:g1055230; CDS_FID:g1055231
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                                                                                                                                    Indels 4;
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).S.; Wen,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   #authors Thompson, R.C.; Mansour, A.; Akil, H.; Watson, S.J.
#journal Neuron (1993) 11:903-913
#title Cloning and pharmacological characterization of a rat
opioid receptor.
#cross-references MUID:94059560
#FOREST TEACTOR
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#journal Proc. Natl. Acad. Sci. U.S.A. (1993)
#title Mu opiate receptor: cDNA cloning and
#cross-references_MUID:94052137
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ##molecule_type mRNA
##residues 1-398 ##label FUK
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                                                                                                                                                                                                                                                                                                                                                                                                                            ##residues 1-398 ##label WAN 1-398 ##cross-references GB:L20684; NID:g409149;
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                                                                                                                                                                                                                                                                                                              Local
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VIECCLQFPDDDYSWWDLFMKICVFIFAFVIPVLIIIVCYTLMILRLKXVRLLSGSREKD
                                                                                              -idctltfshptw-ywenllkicvfifafimpvliitvcyglmilrlksvrmlsgskekd 272
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                                                                                                                                      FTLTMMSVDRYIAVCHPVKALDFRTPLKAKIINICIWLLSSSVGISAIVLGGTKVREDVD
                                                                                                                                                                                                                                                                                            ch 68.3%; similarity 66.1%; 191; Conservative
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mu opiate receptor - rat
#formal_name Rattus norvegicus #common_name Norway rat
10-Dec-1993  #sequence_revision 10-Nov-1995  #text_change
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Fukuda, K.; Kato, S.; Mori, K.; Nishi, M.; Takeshima, H. FEBS Lett. (1993) 327:311-314
Primary structures and expression from cDNAs of rat opio
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     preliminary; translated
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                                                                                                                                                                                                                                                                                                45;
                                                                                                                                                                                                                                                                                                              Score 1522; DB 14;
Pred. No. 1.58e-222;
                                                                                                                                                                                                                                                                                                  Mismatches 49;
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Mestek, A.; Hurley, J.H.; Bye, L.S.; Campbell, A.D.; Cher.

Y.; Tian, M.; Liu, J.; Schulman, H.; Yu, L.

#journal J. Neurosci. (1995) 15:2396-2406

The human mu opioid receptor: modulation of functional desensitization by calcium/calmodulin-dependent protein kinase and protein kinase C.

#cross-references MUID:95193115

#status

Dingle: A.; Hurley, J.H.; Bye, L.S.; Campbell, A.D.; Cher.

Y.; Tian, M.; Liu, J.; Schulman, H.; Yu, L.

#constant desensitization by calcium/calmodulin-dependent protein kinase C.
                               73-96
107-132
144-165
188-208
236-257
283-304
323-342
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               ,12,33,40,48
                                                                                                                                                                                                               ##cross-references GDB:137216
                                                                                                                                                                                                                                                              ##status preliminary
##molecule_type mRNA
##residues 387-400 ##label
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ##molecule_type mRNA
##residues 1-400 ##label RES
##cross-references GB:L29301; NID:g459831; CDS_PID:g459832
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G protein-
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FEBS Lett. (1994) 354:213-216
Expression of two variants of the
mRNA in SX-N-SH cells and human
S51215
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Wang, J.B.; Johnson, P.S.; Persico, A.M.; Hawkins, Griffin, C.A.; Uhl, G.R.
FEBS Lett. (1994) 338:217-222
Human mu oplate receptor. cDNA and genomic clones, pharmacologic characterization and chromosomal 5 $41075
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Wang, J.B.; Johnson, P.S.; Persico, Griffin, C.A.; Uhl, G.R. submitted to GenBank, August 1994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  #type complete
opiate receptor mu - human
MOR1 protein; opioid receptor mu
#formal_name Homo sapiens #common_name man
02-Jul-1996 #sequence_revision 02-Jul-1996
06-Sep-1996
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          (covalent)
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                      275 rnlrritrmvlvvvavfivcwtpihiyviikalvtipettfqtvswhfcialgytnscin 334
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##residues 387-392 ##label BAW
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NCE S51215
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                                                                VIECCLQFPDDDYSWWDLFMKICVFIFAFVIFVLIIIVCYTLMILRLKXVRLLSGSREKD
XNLRRITRLVLVVVAVEVVCWTPIHIFILVEALGSTSHSTAALSSYYFCIALGYTNSSLN
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FEBS Lett. (1994) 354.213-216
Expression of two variants of the
mRNA in SK-N-SH cells and human
S51216
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Faie, L.A.; Mansson, E.; Yang, D. submitted to the EMBL Data Library, July 19 Expression of two variants of the human mu mRNA in SK-N-SH cells and human brain. 865693
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opioid receptor mu variant MORIA - human
formal_name Homo sapiens #common_name man
12-Jul-1996 #sequence_revision 26-Jul-1996
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Pred. No. 3.38e-222;
43; Mismatches 46;
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Pred. No. 1.58e-222;
43; Mismatches 46;
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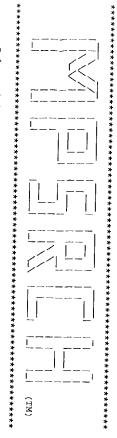
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##molecule_type mRNA
##residues
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##cross-references GB:L13069; NID:g348250; CDS_PID:g348251
x #length 398 #molecular-weight 44508 #checksum
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190; Conser
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          mu-opioid receptor - rat
#formal_name Rattus norvegicus #common_name Norway rat
26-Jul-1996 #sequence_revision 26-Jul-1996 #text_change
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Molecular cloning and functional expression of a receptor from rat brain.
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                                                                                      mu opioid receptor - rat
#formal_name Rattus norvegicus
26-Jul-1996 #sequence_revision
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                    Zastawny, R.L.;
J.; Briones-Un
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.stawny, R.L.; George, S.R.; Nguyen,
J.; Briones-Urbina, R.; O'Dowd, B.F.
Neurochem. (1994) 62:2099-2105
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Pred. No. 3.38e-222;
46; Mismatches 49;
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26-Jul-1996 #text_change
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#cross-references MUID:94246380
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##cross-references EMBL:U35424; NID:g1017731; CDS_PID:g1017732
W #length 398 #molecular-weight 44403 #checksum 8604
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(Y #length 372 #molecular-weight 40368)
                                                                                                                                                                                                                                                                                                 ##status preliminary; translated ##molecule_type mRNA
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 vv-cmlqfpspsw-ywdtvtkicvflfafvvpiliitvoyglmllrlrsvrllsgskekd 253
                                                                                 ftltmmsvdryiavchpvkaldfrtpakakliniciwvlasgvgvpimvmavtrprdga- 195
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                                                                                                                              YTKMKTATNIYIENLALADALVTTTMPFQSTVYLMNSWPFGDVLCKIVISIDYYNMFTSI
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                                                                                                                                                                                                                                                                                                                                                                            Simonin, F.; Befort, K.; Gaveriaux-Ruff, C.; Matthes, Nappey, V.; Lannes, B.; Micheletti, G.; Kieffer, B. Mol. Pharmacol. (1994) 46:1015-1021
The human delta-opioid receptor: genomic organization, cloning, functional expression, and distribution in
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larity 65.7%;
Conservative
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138657
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#formal_name Homo sapiens #common_name man
06-Sep-1996 #sequence_revision 06-Sep-1996
06-Sep-1996
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Pred. No. 1.03e-219;
45; Mismatches 50;
                                                                                                                                                                                            Score 1458; DB 13;
Pred. No. 6.26e-212;
43; Mismatches 33;
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##cross-references EMBL:U00475;
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##meidon_
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##residues 1-372 ##label FUK
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179; Conser
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J. Neurosci. Res. (1994) 27:714-719
Molecular cloning and expression of a receptor from rat brain.
                             A48227
                                                       B48227 #type complete
delta opioid receptor I - mouse
frormal_name Mus musculus #common_name house mouse
26-May-1994 #sequence_revision 26-May-1994 #text_cl
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#length
Yasuda, K.; Raynor, K.; Kong, Reisine, T.; Bell, G.I.
                                        B48227; S37807; A48685
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68.8%;
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Pred. No. 6.16e-211;
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5; NID:g403488; CDS_PID:g514211
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           C.D.;
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           Takeda, J.;
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#title
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                                                                                                                                                                                                                                                                                                                                                                                               ##experimental_source NGIO8-15 hybrid cells
##note sequence extracted from NCBI backbone
NDS brain; G protein-coupled receptor; glycoprotein;
phosphoprotein; transmembrane protein
#length 372 #molecular-weight 40561 #checksum
                                                         240
                                                                         314 npvlyafldenfkrcfrqlc
                                                                                                                        254 rslrritrmvlvvvgafvvcwapihifvívwtlvdinridplvvaalhlcialgyanssl 313
                                                                                                                                                                         121
                                                                                                                                                                                                                                                             137
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##molecule_type mRNA.
##residues 8-372 ##label BZD
##reross-references NCBIN:138518; h
completed:
ne : 24 secs
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Release 2.1D John F. Collins, Biocomputing Research Unit. Copyright (c) 1993, 1994, 1995 University of Edinburgh, U.K. Distribution rights by IntelliGenetics, Inc.

MPsrch_pp protein - protein database search, using Smith-Waterman algorithm

Tabular output not generated. Tue Aug 26 07:57:57 1997; MasPar time 10.91 Seconds 573.506 Million cell updates/sec

Title:
Description:
Perfect Score:
Sequence: >US-08-292-694A-12 (1-295) from US08292694A.pep 2229

YTKMKTATNIYIFNLALADA.....NTVQDPAYLREIDGMMNKPV 295

Post-processing: 59021 segs, 21210388 residues

Searched:

Scoring table:

PAM 150 Gap 11

Minimum Match 0% Listing first 45 summaries

Database:

Statistics:

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution. swiss-prot34
1:part1 2:part2 3:part3 4:part4 5:part5 6:part6 7:part7
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SUMMARIES

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MEDLINE; 94224825.

XIE G.X., MENG F., MANSOUR A., THOMPSON R.C., HOVERSTEN M.T.,

GOLDSTEIN A., WATSON S.J., AKIL H.;

GOLDSTEIN A., WATSON S.J., AKIL H.;

PROC. NATL. ACAD. SCI. U.S.A. 91:3779-3783(1994).

1- FUNCTION: INHIBITS NEUROTRANSHITTER RELEASE BY REDUCING CR. ION CURRENTS AND INCREASING POTASSIUM ION CONDUCTANCE. RECEOR DYNORPHINS. MAY PLAY A ROLE IN AROUSAL AND REGULATION
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EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
EUTHERIA; RODENTIA.
                                                                                                                                                                                                                                                                                                                                                                                                 01-FE3-1995 (REL. 31, CREATED)
01-FE3-1995 (REL. 31, LAST SEQUENCE UPDATE)
01-NOV-1995 (REL. 32, LAST ANNOTATION UPDAT
KAPPA-TYPE OPIOID RECEPTOR (KOR-1).
CAVIA PORCELLUS (GUINEA PIG).
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PROSITE; PSO0237; G_PROTEIN_RECEPTOR.

G-PROTEIN COUPLED RECEPTOR; TRANSMEMBRANE;

PHOSFHORYLATION; LIPOPROTEIN; PALMITATE.
                                                                                                                                                                                                                                                                                                                       SEQUENCE
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SUBCELLULAR LOCATION: INTEGRAL MEMBRANE PROTEIN.
SIMILARITY: BELONGS TO FAMILY 1 OF G-PROTEIN COUPLED RECEPTORS
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RANGE SENSON SEN
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                                                                                                                                                                                                                                                                                        OPRK_MOUSE STANDARD; PRT; 380 AA.

p33534;
p33534;
p1-FEB-1994 (REL. 28, CREATED)
p1-FEB-1994 (REL. 28, LAST SEQUENCE UPDATE)
p1-OCT-1996 (REL. 34, LAST ANNOTATION UPDATE)
p1-OCT-1996 (REL. 34, LAST ANNOTATION UPDATE)
KAPPA-TYPE OPIOID RECEPTOR (KOR-1) (MSL-1).

MUS MUSCULUS (MOUSE).

BUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TRANSMEM
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                                                                                                               SEQUENCE;
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MEDLINE; 9
LIU H.C.,
LOH H.H.,
                                                                                                                                                                             YASUDA K., RAYNOR
BELL G.I.;
                                                                                                                                                                                                                                             SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                              EUTHERIA;
                                                                                                                                                                                                                MEDLINE;
                                                                                                                                                                                                                               TISSUE-BRAIN;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      327
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                                                  SEQUENCE
                                                                                 BIOCHEM.
                                                                                                  NISHI M.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      241
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   E FROM N.A.
; 95251663.
., LU S., AUGUSTIN I
., WEI L.N.;
                                                                                                               FROM N.A.
95100967.
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                                                                                   BIOPHYS.
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                                                                                                    TAKESHIMA
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                     L.B.,
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Pred. No. 0.
10; Mismato
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CYTOPLASMIC (I
BY SIMILARITY
PALMITATE (PO:
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EXTRACELLULAR (POTENTIAL)
7 (POTENTIAL)
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5 (POTENTIAL).
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                                                                                   M., NAKAGAWARA K.I., T
N. 205:1353-1357(1994).
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                                                                                                                                                                   90:6736-6740(1993)
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                     FELSHEIM
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                       R.F.,
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                       CHEN
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P34975;
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CARBOHYD
CONFLICT
CONFLICT
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TRANSMEM
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DOMAIN
TRANSMEM
DOMAIN
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DOMAIN
                                                                                  181
                                                                                                                                                                                                                                                                        SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PROSITE; pS00237; G_PROTEIN_RECEPTOR.
G-PROTEIN COUPLED RECEPTOR; TRANSMEMBRANE; GLYCOPROTEIN;
PHOSPHORYLATION; LIPOPROTEIN; PALMITATE.
                                             241
                                                                327
                                                                                                                                                                                                                                                                                                                       LIPID
                                                                                                                                                                                                                                                                                                                               DISULFID
                                                                                                                                                                                                                                                                                                                                         DOMAIN
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PROSITE; PS00237;
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                                                                                                                                                                            147
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CHEM. BIOPHYS. RES. COMMUN. 209:639-647(1995).
FUNCTION: INHIBITS NEUROTRANSMITTER RELEASE BY REDUCING CALCIUM ION CURRENTS AND INCREASING POTASSIUM ION CONDUCTANCE. RECEPTOR FOR DYNORPHINS. MAY PLAY A ROLE IN AROUSAL AND REGULATION OF AUTONOMIC AND NEUROENNOCRIME FUNCTIONS.
SUBCELLULAR LOCATION: INTEGRAL MEMBRANE PROTEIN.
TISSUE SPECIFICITY: BRAIN (MEOCORTEX, HIPPOCAMPUS, AMYGDALA, MEDIAL HABENULA, HYPOTHALAMUS, LOCUS CERULEUS, AND PARABRACHIAL
                                       PILYAFLDENEKRCERDECEPLKMXMERXSTSRVRNTVQDPAYLREIDGMMNKPV
                                                  pvlyafldenfkrofrdfofpikmrmerqstnrvrntvqdpasmrdvggm-nkpv
                                                                                     rnlrritklvlvvvavfiicwtpihifilvealgstshstaalssyyfcialgytnssln
                                                                                                                VIECCLQFPDDDYSWWDLFMKICVFIFAFVIPVLIIIVCYTLMILRLKXVRLLSGSREKD
                                                                                                                           viecslqfpddeyswwdlfmkicvfvfafvipvliiivcytlmilrlksvrllsgsrekd
                                                                                                                                                    FTLTMMSVDRYIAVCHPVKALDFRTPLKAKIINICIWLLSSSVGISAIVLGGTKVREDVD
                                                                                                                                                                                         YTKMKTATNIYIFNLALADALYTTTMPFQSTVYLMNSWPFGDVLCKIVISIDYYNMFTSI
                                                                                                                                                                                                     ; L11065; G348249; ...
; D31665; G808876; ...
; D31663; G808876; ...
; D31664; G808876; ...
; S77872; G998532; ...
; S77868; G998532; ...
; S77869; G998532; ...
; S77869; G998532; ...
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SIMILARITY:
                                                                                                                                                                ftltmmsvdryiavchpvkaldfrtplkakiiniciwllassvgisaivlggtkvredvd
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                                                                                                                                                                                                                                  Similarity 274; Consen
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231
380
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                                                                                                                                                                                                                                                                       AA;
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                                                                                                                                                                                                                                                                      42652 MW;
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Pred.
13; M
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POTENTIAL.
POTENTIAL.
S -> L (IN )
F -> V (IN )
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5 (POTENTIAL).
      PRT;
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7 (POTENTIAL).
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6 (POTENTIAL)
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CYTOPLASMIC (
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3 (POTENTIAL).
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No. 0.
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J.00e+00;
7;
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                                                                                                                                                                                                                                                                    REF. 2
REF. 2
CRC32;
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-!- SUBCELLULAR LOCATION: INTEGER

-!- SUBCELLULAR LOCATION: INTEGER

-!- SIMILARITY: BELONGS TO FAMIL

EMBL; L22001; 6409237; --

EMBL; D16829; 6404115; --

EMBL; D16534; 6415310; --

EMBL; D16534; 6415310; --

EMBL; D16534; 6727260; --

EMBL; U17995; 6727260; JOINED.

EMBL; U17993; 6727260; JOINED.

EMBL; U17994; 6727260; JOINED.

EMBL; U17995; 6
 PHOSPHORYLATION;
DOMAIN 1
TRANSMEM 59
DOMAIN 86
TRANSMEM 96
                                                                                        PROSITE; PS00237; G_PROTEIN_RECEPTOR.
G-PROTEIN COUPLED RECEPTOR; TRANSMEMBRANE;
                                                                                                                                                                                                                                                                                                                                                                                                                                              YAKOVLEY A.G., KRUEGER K.E., FADEN A.I.;

J. BIOL. CHEM. 270:6421-6424(1995).

-!- FUNCTION: IMHIBITS NEUROTRANSMITTER RELEASE BY REDUCING CALCIUM FOR CURRENTS AND INCREASING POTASSIUM ION CONDUCTANCE. RECEPTOR FOR DYNORPHINS. MAY PLAY A ROLE TO ANOUSAL AND REGULATION OF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MEDLINE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MEDLINE; 94
LI S., ZHU
LIU-CHEN L.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          01-FEB-1994
01-FEB-1994
01-FEB-1996
KAPPA-TYPE O
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MENG F., XIE G.-X. WATSON S.J., AKIL PROC. NATL. ACAD.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          STRAIN-SPRAGUE-DAWLEY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LIU-CHEN L.-Y.;
BIOCHEM. J. 295:629-633(1993).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MEDLINE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STRAIN-SPRAGUE-DAWLEY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         STRAIN=WISTAR; TISSUE=BRAIN; MEDLINE; 93380575.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A.
STRAIN-SPRAGUE-DAWLEY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MINAMI M., TOYA T., KATAO Y.,
KANEKO S., SATOH M.;
FEBS LETT. 329:291-295(1993).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RATTUS NORVEGICUS (
EUKARYOTA; METAZOA;
EUTHERIA; RODENTIA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TISSUE=BRAIN;
MEDLINE; 94059008.
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XIE G.-X., THOMPSON R.C., MANSOUR A.,
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J. 295:625-628(1993).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TAKESHIMA H., FUK . 330:77-80(1993).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    4 (REL. 28, CREATED)
4 (REL. 28, LAST SEQUENCE UPDATE)
6 (REL. 33, LAST ANNOTATION UPDAT
0PIOID RECEPTOR (KOR-1).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ., CHEN C., CHEN Y.-W., DERIEL Y.;
   ; LIPOPROTEIN; E E 85 1 95 C 117 2
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A; CHORDATA; VERTEBRATA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FUKUDA
                                                                                                                                                                                                                                                                                                                                                                                                                     INTEGRAL MEMBRANE PROTEIN
N; PALMITATE. EXTRACELLULAR (POTENTIAL).
1 (POTENTIAL).
CYTOPLASMIC (POTENTIAL).
2 (POTENTIAL).
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                                                                                          GLYCOPROTEIN;
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Best Local S
Matches 27
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SEQUENCE FROM N.A.
STRAIN-C578L/6; TISSUE=LIVER;
MEDLINE; 94377496.
MIN B.H., AUGUSTIN L.B., FELSH
MIN B.H., AUGUSTIN SCI. U.S.A.
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TRANSMEM
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P42866;
01-NOV-1995
01-NOV-1995
01-NOV-1995
MU-TYPE OPIO
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DOMAIN
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MUS MUSCULUS (MOUSE).
MUSARYOTA; METAZOA; CHORDATA;
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                                                                                                                                 MEDLINE; 95377399.
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                                                                                                                                                        ISSUE-BRAIN;
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FOR BETA-ENDORPHIN.
SUBCELLULAR LOCATION: I
SIMILARITY: BELONGS TO
L; Ul0561; G565069; -.
                                                                   SI G.C., PAN Y.X., BROWN G.P., PASTERNAK G.W.; S LETT. 369:192-196(1995).
FUNCTION: INHIBITS NEUROTRANSMITTER RELEASE BY ION CURRENTS AND INCREASING POTASSIUM ION CONDU
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(REL. 32, LAST SEQUENCE UPDATE)
(REL. 32, LAST ANNOTATION UPDAT
OID RECEPTOR (MOR-1).
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CYTOPLASMIC (POTENTIAL).

6 (POTENTIAL).

EXTRACELLULAR (POTENTIAL).

7 (POTENTIAL)
                   INTEGRAL MEMBRANE
D FAMILY 1 OF G-PRO
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BY SIMILARITY.
PALMITATIE (POTENTIAL).
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POTENTIAL.
V -> L (IN REF. 2).
C -> Y (IN REF. 3).
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Pred. No. 0.00e+00;
13; Mismatches 8
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4 (POTENTIA)
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3 (POTENTIAL).
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                                                                                                                                                                                                                                                                                                                                 VERTEBRATA;
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                                                                                                                          PASTERNAK G.W.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       398
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REF. 3
CRC32;
                   G-PROTEIN COL
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                                                                       ION CONDUCTANCE.
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                       COUPLED
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Best Local
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TRANSMEM
FUKUDA K., I
FEBS LETT. :
[2]
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                                                                                                                                                                                                                                                                        01-FEB-1994 (REL. 28, CREATED)
01-FEB-1994 (REL. 28, LAST SEQUENCE UPDATE)
01-JUN-1994 (REL. 29, LAST ANNOTATION UPDATE)
01-JUN-1994 (REL. 29, LAST ANNOTATION RECEPTOR (MOR-1) (OPIOID RECEPTOR (MOR-1))
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LIPID
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                                                                                                                                                                            EUKARYOTA;
EUTHERIA; 1
                                                                                                                                                                                                        RATTUS NORVEGICUS (
EUKARYOTA; METAZOA;
                                                                                                                                                                                                                                                      ROR-B
                                                                                                                            SEQUENCE
                                                                            TISSUE=BRAIN;
MEDLINE; 9335
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   333
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                              93351652.
., KATO S., MORI K.,
T. 327:311-314(1993).
                                                                                                                            FROM
                                                                                                                                                                            RODENTIA
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                                                                                                                                                                                                                                                                                                                                                                                                    STANDARD;
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A; CHORDATA;
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65.7%;
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JOINED.
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EXTRACELLULAR (POTENTIAL).

5 (POTENTIAL).

CYTOPLASMIC (POTENTIAL).

6 (POTENTIAL).

EXTRACELLULAR (POTENTIAL).

7 (POTENTIAL).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 1524; DB 7;
Pred. No. 1.85e-278;
47; Mismatches 48;
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C0211489
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CYTOPLASMIC (P
BY SIMILARITY.
PALMITATE (POT
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CYTOPLASMIC (
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3 (POTENTIAL)
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                                                       NISHI M.,
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                                                                                                                                                                                                           VERTEBRATA;
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                                                             TAKESHIMA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CRC32;
                                                                                                                                                                                                                                                                                  RECEPTOR
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                                                                                                                                                                                                             TETRAPODA; MAMMALIA;
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                                                             Ξ.;
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SALARA SARARA SA
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DOMAIN
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                                                                                                                                                                                          CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GCRDB; GCR_0639; -GCRDB; GCR_0640; -
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                                                                                                                                                                                                                                                                                                         TRANSMEM
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PHOSPHORYLATION;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      -i- SUBCELLULAR LOCATION: INTEGRAL MEMBRANE PROTEIN.

-i- TISSUE SPECIFICITY: BRAIN, WITH HIGH CONCENTRATIONS IN BRAINSTEM AND CEREBRUM. NOT DETECTED IN CEREBELLUM.

-i- SIMILARITY: BELONGS TO FAMILY 1 OF G-PROTEIN COUPLED RE EMBL; D16349; G391867; --
EMBL; L10684; G409150; --
EMBL; L20684; G409150; --
EMBL; L1069; G348251; --
EMBL; U02083; G403574; --
EMBL; L22455; G437672; --
EMBL; L22455; G437672; --
EMBL; C34653; C447672; --
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                THOMPSON R.C., MANSOUR NEURON 11:903-913(1993)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     -!- SUBCELLULAR LOCATION:
-!- TISSUE SPECIFICITY: BR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A.
SIRAIN=SPRAGUE-DAWLEY;
BUNZOW J.R., GRANDY D.I
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MEDLINE; 93341493.
CHEN Y., MESTEK A., LIU J., HI
MOL. PHARMACOL. 44:8-12(1993)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MEDLINE; 94059560
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    STRAIN=SPRAGUE-DAWLEY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SUBMITTED
96 ytkmktatniyifnlaladalatstlpfqsvnylmgtwpfgtilckivisidyynmftsi 155
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WANG J.-B., IMAI
PROC. NATL. ACAD.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.
TISSUE=BRAIN;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FOR BETA-ENDORPHIN
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                                        Similarity
191; Conser
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398
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351
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ACAD.
                                        Conservative
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                                                                                                         AA,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LIPOPROTEIN;
                                                                                                                      68.3%;
                                                                                                       44494
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PROTEIN_RECEPTOR.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              IS NEUROTRANSMITTER RELEASE BY REDUCING CALCIUM INCREASING POTASSIUM ION CONDUCTANCE, RECEPTOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ö
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.K., KELLY M.;
TO EMBL/GENBANK/DDBJ DATA BANKS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TISSUE-OLFACTORY BULB;
                                                                                                       MW;
                                                                                                                                                                                                                                                                                                4 (POTENTIAL).

EXTRACELLULAR (POTENTIAL).

5 (POTENTIAL).

CYTOPLASMIC (POTENTIAL).

6 (POTENTIAL).
                                      Score
Pred.
45; M
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A. 90:10230~10234(1993).
                                                                                                                                                                                                                7 (POTENTIAL).
CYTOPLASMIC (P
BY SIMILARITY.
PALMITATE (POT
                                                                                                    POTENTIAL.
V -> I (IN
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POTENTIAL.
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                                                                                                                                                                                                                                                                      6 (POTENTIAL).
EXTRACELLULAR (POTENTIAL).
7 (POTENTIAL).
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EXTRACELLULAR (POTENTIAL).

1 (POTENTIAL).
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3 (POTENTIAL).
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                                   ce 1522; DB 7; I
1. No. 4.80e-278;
Mismatches 49;
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CRC32;
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                                    Indels
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01-JUN-1994
01-NOV-1995
                                                                                                                           DOMAIN
                                                                                                                                                                                                                                                    TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        -!- SIMILARITY: BELONGS TO EMBL; L25119; G452073; -. EMBL; L29301; G459832; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FEBS
                                                                                                                                                                                                                                                                                                                                                                           PHOSPHORYLATION;
DOMAIN 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                   PROSITE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SUBMITTED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MESTEK A. JR.,
CHEN Y., YU L.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WANG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     HOMO SAPIENS (HUMAN).
EUKARYOTA; METAZOA; CHORDATA;
EUTHERIA; PRIMATES.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TISSUE=BRAIN;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MU-TYPE OPICID
OPRM1 OR MOR1.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      P35372;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           OPRM_HUMAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               241
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SUBCELLULAR LOCATION: INTEGRAL MEMBRANE PROTEIN SIMILARITY: BELONGS TO FAMILY 1 OF G-PROTEIN COL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MITTED (XXX-1994) TO EMBL/GENBANK/DDBJ DATA BANKS.
FUNCTION: INHIBITS NEUROTRANSMITTER RELEASE BY REDUCING ION CURRENTS AND INCREASING POTASSIUM ION CONDUCTANCE. I
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    G.R.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FOR BETA-ENDORPHIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8; GCR_0966;
600018; -.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      .-В.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                   PS00237;
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                                                                                                                                                                                                                                                                                                                                                                                                                         COUPLED
  338:217-222(1994).
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(REL. 29, LAST SEQUENCE UP
(REL. 32, LAST ANNOTATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         JOHNSON
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                                                                                                                                                                                                                                                                                                                                                                                                LIPOPROTEIN;
                                                                                                                                                                                                                                                                                                                                                                                                                       G_PROTEIN_RECEPTOR RECEPTOR; TRANSMEM
  P.S., PERSICO A.M.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (MOR-1)
               5 (POTENTIAL).

CYTOPLASMIC (POTENTIAL).

6 (POTENTIAL).

EXTRACELLULAR (POTENTIAL).

7 (POTENTIAL).

CYTOPLASMIC (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                               TRANSMEMBRANE; GLYCOPROTEIN;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              BYE L.S.,
                                                                                                                                        EXTRACELLULAR
5 (POTENTIAL)
                                                                                                                                                                                                                CYTOPLASMIC
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EXTRACELLULAR
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                                                                                                                                                                                         (POTENTIAL)
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RECEPTOR
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Best Local S
Matches 18
                                                                                                               A SIMONIN E., BEFORT K., GAVERIAUX-RUFF C., MATTHES H., I
LANNES B., MICHELETTI G., KIEFFER B.;
MOL. PHARMACOL. 46:1015-1021(1994).
PUNCTION: INHIBITS NEUROTRANSMITTER RELEASE BY REDITON CORRENTS AND INCREASING POTASSIUM ION CONDUCTAN STERBOSELECTIVE. RECEPTOR FOR ENKEPHALINS.
-1- SUBCELLULAR LOCATION: INTEGRAL MEMBRANE PROTEIN.
-1- SIMILARITY: BELONGS TO FAMILY 1 OF G-PROTEIN COUPLE EMBL; U07882; G497314; -.
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OPRD_HUMAN
P41143;
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CONFLICT
CONFLICT
 PHOSPHORYLATION;
DOMAIN 1
TRANSMEM 46
DOMAIN 76
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01-FEB-1995 (REL.
01-FEB-1996 (REL.
                                                                                                                                                                                                                                                                                                                                                                 KNAPP R.J., MALATYNSKA E., SANTORO G., VARGA E.V., HR
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EUKARYOTA; METAZOA; C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DELTA-TYPE OPIOID
                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A.
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                                                                                                                                                                                                                                                                                                  MEDLINE;
                                                                                                                                                                                                                                                                                                                                                  LIFE SCI.
                                                                                                                                                                                                                                                                                                                                                                                                     MEDLINE;
                                                                                                                                                                                                                                                                                                                                                                                                                       TISSUE=CEREBRAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         EUTHERIA; PRIMATES.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              158
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| Similarity 67.1%;
| 188; Conservative
                                                                                                                                                                                                                                                                                                  95107267.
                                                                                                                                                                                                                                                                                                                                                                                                     94260835
                                                                        PS00237; G_PROTEIN_RECEPTOR TRANSMEM
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                                                                                                                                                                                                                                                                                                                                                                                                                       CORTEX,
                                       TIPOPROTEIN; PALMTTANT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            31, CREATED)
31, LAST SEQUENCES AND RECEPTOR (DOING)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
     75
84
84
                                                                                                                                                                                                                                                                                                                                                                      E., FANG L., HRUBY V.J.,
                                                                                                                                                                                                                                                                                                                                                                                                                         AND
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T ANNOTATION UPDATE
R (DOR-1).
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Pred. No. 1.
43; Mismatc
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N -> D (IN
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                                                                                                                                                                                                                                                                                                                                                                                                                         STRIATUM;
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EXTRACELLULAR

1 (POTENTIAL).

CYTOPLASMIC (PO
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REF. 2
CRC32;
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.25e-277;
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       (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                        BABIN
W.R.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          7;
                                       (POTENTIAL).
                                                                           GLYCOPROTEIN;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          46;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       374
                                                                                                                                                                                                               SE BY REDUCING CONDUCTANCE. I
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length
                                                                                                                                                                                                                                                                                                                                                                        YAMAMURA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels
                                                                                                                                                                COUPLED
                                                                                                                                                                                                                                                                                     н.,
                                                                                                                                                                                                                                                                                                                                                                        NGUYEN
AMURA H
                                                                                                                                                                                                                                                                                       NAPPEY
                                                                                                                                                                  RECEPTORS
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                                                                                                                                                                                                                    HIGHLY
                                                                                                                                                                                                                                                                                                                                                                        н х
                                                                                                                                                                                                                                   CALCIUM
                                                                                                                                                                                                                                                                                     ۷.,
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Best Local
                                                                                                                                                                                                                                                                                                                                     Matches
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DOMAIN
                                                                                                                                 01-FEB-1994 (REL. 2
01-FEB-1994 (REL. 2
01-FEB-1995 (REL. 2
DELTA-TYPE OPIOID F
                                                                                                                                                                                                                                                                                                                                                                      CONFLICT
                                                                                                                                                                                                                                                                                                                                                                                          CONFLICT
                                                                                                                                                                                                                                                                                                                                                                                                                      DOMAIN
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                         DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                  TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                        DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TRANSMEM
                                                                                                                                                           OPRD_RAT P33533;
                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                    CONFLICT
                                                                                                                                                                                                                                                                                                                                                                                                         DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                              CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                    TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                TRANSMEM
                                                                                                                           ROR-A
FEBS
                                                                                                      EUTHERIA;
                                                                                                            EUKARYOTA;
                                                                                                                    RATTUS NORVEGICUS
                                  STRAIN-SPRAGUE-DAWLEY;
MEDLINE; 94322412.
                                                                           MEDLINE;
                                                                                                                                                                                                           314
                                                                                                                                                                                                                         181
                                                                                                                                                                                                                                      254
                                                                                                                                                                                                                                                     121
                                                                                                                                                                                                                                                                                            137
                                                                                  TISSUE-BRAIN;
                                                                                                                                                                                              240
                                                 SEQUENCE FROM N.A.
                                                                                         SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                               61
                                                                                                                                                                                                                                                                                                                 77 ytkmktatniyifnlaladalatstlpfqsakylmetwpfgellckavlsidyynmftsi
                                                                                                                                                                                                                                                                                                          μ
                                                                                                                                                                                                                                                   vv-cmlqfpspsw-ywdtvtkicvflfafvvpillitvcyglmllrlrsvrllsgskekd
                                                                                                                                                                                                                                                                               ftltmmsvdryiavchpykaldfrtpakakliniciwvlasgvgvpimvmavtrprdga-
                                                                                                                                                                                                                                                                                                          npvlyafldenfkrcfrqlc
                                                                                                                                                                                                                        XNLRRITRLVLVVVAVEVVCWTPIHIFILVEALGSTSHSTA-ALSSYYFCIALGYTNSSL
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                                                                                                                                                                                              NPILYAFLDENEKRCFRDFC
                                                                                                                                                                                                                                                                                                                                      180;
                                                                                                                                                                                                                                                                                                                                            Similarity
                                                              93351652.
.., KATO S., MORI K.,
T. 327:311-314(1993)
                                                                                                                                                                                                                                                                                                                                                                1145
1195
1296
2399
266
286
294
311
18
311
18
331
121
133
333
121
131
333
121
333
121
333
370
                                                                                                       RODENTIA
                                                                                                              METAZOA;
                                                                                                                                                                                                                                                                                                                                     Conservative
                                                                                                                                                                                                                                                                                                                                                                 AA,
                                                                                                                                                                    STANDARD;
                                                                                                                   (RAT)
                                                                                                                                 28, CREATED)
28, LAST SEQUENCE UPDATE)
31, LAST ANNOTATION UPDATE)
RECEPTOR (DOR-1) (OPIOID RE
                                                                                                                                                                                                                                                                                                                                                                        69.2%;
                                                                                                                                                                                                                                                                                                                                                                 40450
                                                                                                              CHORDATA;
                                           TISSUE=BRAIN,
                                                                                                                                                                                                                                                                                                                                                                 WW.
                                                                                                                                                                                                             333
                                                                                                                                                                                               259
                                                                                                                                                                                                                                                                                                                                                                                                                                                5 (POTENTIAL).
CYTOPLASMIC (POTENTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3 (POTENTIAL).
CYTOPLASMIC (Potential)
                                                                                                                                                                                                                                                                                                                                                                      PALMITATE (POTENTIAL).

F -> C (IN REF. 2).

PG -> AR (IN REF. 2).

P -> A (IN REF. 2).

R -> A (IN REF. 2).
                                                                                                                                                                                                                                                                                                                                      Score 1458; DB 7;
Pred. No. 8.72e-265;
43; Mismatches 33;
                                                                                                                                                                                                                                                                                                                                                                                                          POTENTIAL
BY SIMILAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                               EXTRACELLULAR (POTENTIAL)
5 (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                             EXTRACELLULAR (POTENTIAL)
7 (POTENTIAL).
CYTOPLASMIC (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                        POTENTIAL.
                                                                     NISHI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (POTENTIAL)
                                                                                                                                                                     PRT;
                                                                                                              VERTEBRATA;
                                                                                                                                                                                                                                                                                                                                                                 CFF92985
                                                                                                                                                                                                                                                                                                                                                                                                         SIMILARITY
                                                                     Υ.
                                                                                                                                                                     372
                                                                       TAKESHIMA
                                                                                                                                                                                                                                                                                                                                                                  CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                         (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (POTENTIAL).
                                                                                                                                                                     A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (POTENTIAL)
                                                                                                               TETRAPODA; MAMMALIA;
                                                                                                                                   RECEPTOR
                                                                                                                                                                                                                                                                                                                                                    Length
                                                                                                                                   A)
                                                                                                                                                                                                                                                                                                                                                      372;
                                                                                                                                                                                                                                                                                                                                        4.
                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                               195
                                                                                                                                                                                                                                                                                  120
                                                                                                                                                                                                                                                                                                              60
                                                                                                                                                                                                                                          313
                                                                                                                                                                                                                                                       180
                                                                                                                                                                                                                                                                     253
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RESULT ID AC PA CONTROL PA CONTRO
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Ma
Best Loc
Matches
                                                                                                                                PORD_MOUSE STANDARD; PRT; 372 AA.
P3230;
01-OCT-1993 (REL. 27, CREATED)
01-OCT-1993 (REL. 27, LAST SEQUENCE UPDATE)
01-OCT-1996 (REL. 34, LAST ANNOTATION UPDATE)
DELTA-TYPE OPTOID RECEPTOR (DOR-1) (K56) (MSL
MUS MUSCULUS (MOUSE).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TET
                                 SEQUENCE FROM N.A.
MEDLINE; 93101664.
KIEFFER B.L., BEFORT K
PROC. NATL. ACAD. SCI.
SEQUENCE FROM N.A
                                                                                                                          EUTHERIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DISULFID
LIPID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DOMAIN
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DOMAIN
TRANSMEM
DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TRANSMEM
DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE
                                                                                                                                                                                                                                                                                                                                            240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PROSITE; PS00237; G_PROTEIN_RECEPTOR.
G-PROTEIN COUPLED RECEPTOR; TRANSMEMBRANE; GLYCOPROTEIN;
PHOSPHORYLATION; LIPOPROTEIN; PALMITATE.
                                                                                                                                                                                                                                                                                                                                                                                                                   181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TRANSMEM
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GCRDB; GCR_0638; -
                                                                                                                                                                                                                                                                                                                                                                                                                                                    254
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    77
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                !- SIMILARITY: BELONGS TO F.
MBL; D16348; G391865; -.
BL; U00475; G514211; -.
R; S34592; S34592
RDB; GCT -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Match
                                                                                                                                                                                                                                                                                                                                                                                                    npvlyafldenfkrcfrqlc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          VIECCLQFPDDDXSWWDLFMKICVFIFAPVIPVLIIIVCYTLMILRLXXVRLLSGSREKD
                                                                                                                                                                                                                                                                                                                                       NPILYAFLDENFKRCFRDFC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FTLTMMSVDRYIAVCHPVKALDFRTPLKAKIINICIWLLSSSVGISAIVLGGTKVREDVD 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ftltmmsvdryiavchpvkaldfrtpakakliniciwvlasgvgvpimvmavtqpxdga-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ytklktatniyifnlaladalatstlpfqsakylmetwpfqellickavlsidyynmftsi 136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      l Similarity
179; Conse
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GCR_0805;
                                                                                                                        RODENTIA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         294
311
18
33
121
333
372 /
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                65.1%;
larity 68.8%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ΙΚ.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          40449
                           GAVERIAUX-RUFF C., HIRTH .S.A. 89:12048-12052(1992)
                                                                                                                                                                                                                                                                                                                                       259
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       , WM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    INTEGRAL MEMBRANE PROTEIN.
O FAMILY 1 OF G-PROTEIN COUPLED RECEPTORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CYTOPLASMIC (POTENTIAL).
2 (POTENTIAL).
2 (POTENTIAL).
3 (POTENTIAL).
CYTOPLASMIC (POTENTIAL).
4 (POTENTIAL).
EXTRACELLULAR (POTENTIAL).
5 (POTENTIAL).
5 (POTENTIAL).
5 (POTENTIAL).
6 (POTENTIAL).
6 (POTENTIAL).
6 (POTENTIAL).
7 (POTENTIAL).
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Pred.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      POTENTIAL.
BY SIMILARITY.
PALMITATE (POT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          7 (POTENTIAL).
CYTOPLASMIC (P
POTENTIAL.
                                                                                                                                  VERTEBRATA; TETRAPODA; MAMMALIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          EXTRACELLULAR (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     59F5EE50 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1452; DB 7;
No. 1.52e-263;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (POTENTIAL).
                                                                                                                                                                       (MSL-2).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length
                                            a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Indels
                                            .
ດ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  372;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                       313
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              253
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   195
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QΨ
                         В
                                          Query Match
Best Local
Matches I
                                                                                                                                                                                                                                                                                              -!- SIMILARITY: BELONGS TO FAMILY 1 OF

EMBL; L06322; G192943; -

EMBL; L07271; -; NOT_ANNOTATED_CDS.

EMBL; L11064; G348247; -

EMBL; S65335; G442326; -.

EMBL; S65335; G442326; -.

EMBL; S6531; G435782; -

PIR; S37807; S37807.

PIR; B48227; B48227.

GCRDB; GCR_0229; -

GCRDB; GCR_02493; -

GCRDB; GCR_0634; -

GCRDB; GCR_0634; -
                                                                                                         CARBOHYD
CARBOHYD
                                                                                         DISULFID
LIPID
                                                                                                                            TRANSMEM
DOMAIN
                                                                                                                                                                                          DOMAIN
TRANSMEM
DOMAIN
TRANSMEM
DOMAIN
TRANSMEM
TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TISSUE=BRAIN;
MEDLINE; 93342064.
YASUDA K., RAYNOR K
BELL G.I.;
                                                                                                                                              TRANSMEM
DOMAIN
                                                                               SEQUENCE
                                                                                                                                                                DOMAIN
                                                                                                                                                                          TRANSMEM
                                                                                                                                                                                                                                                   TRANSMEM
                                                                                                                                                                                                                                                                    PHOSPHORYLATION;
                                                                                                                                                                                     DOMAIN
                                                                                                                                                                                                                                                            DOMAIN
                                                                                                                                                                                                                                                                                G-PROTEIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                        ALKORTA I., LOEW G.H.;
PROTEIN ENG. 9:573-583(1996)
-i- FUNCTION: INHIBITS NEURO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE OF 8-372 FROM N.A. MEDLINE; 94022364.
BIDEGA T., CHIN H., KIM K., PROC. NATL. ACAD. SCI. U.S.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3D-STRUCTURE MODELLING. MEDLINE; 97001837.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A.
KEITH D.E. JR., AN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WEDLINE; 93110361.
EVANS C.J., KEITH D.E. JR.,
SCIENCE 258:1952-1955(1992)
[3]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A.
                       77
                                                            Match
             ytklktatniyifnlaladalatstlpfqsakylmetwpfgellckavlsidyynmftsi 136
                                                                                                                                                                                                                                                                                                                                                                                                                     FUNCTION: INHIBITS NEUROTRANSMITTER RELEASE ION CURRENTS AND INCREASING POTASSIUM ION COSTEREOSELECTIVE. RECEPTOR FOR ENKEPHALINS.

TISSUE SPECIFICITY: BRAIN, WITH HIGH CONCENT GANGLIA AND LIMBIC REGIONS.
YTKMKTÄTNIYIFNLALADALVTTTMPFQSTVYLMNSWPFGDVLCKIVISIDYYNMETSI
                                                                                                                                                                                                                                                                                                                                                                                                             SUBCELLULAR LOCATION:
                                         179;
                                                 Similarity
                                                                                                                                                                                                                                                                          PS00237; G_PROTEIN_RECEPTOR.
N COUPLED RECEPTOR; TRANSMEMBRANE;
                                                                                        65.0%;
larity 68.8%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              JR., ANTON B., E PHARMACOL. SOC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ACAD.
                                                                              AA;
                                                                                                                                                                                                                                                                   LIPOPROTEIN; PALMITATE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SCI.
                                                                             333
40561
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ×.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     KONG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 U.S.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                U.S.
                                                                             , ww
                                                                                                                                                                                                                                                                                                                                                                                                 INTEGRAL MEMBRANE PROTEIN COL
                                      Score 1448;
Pred. No. 1.
44; Mismatc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            EVANS C.J.;
C. 36:299-306(1993)
                                                                         POTENTIAL.

POTENTIAL.

BY SIMILARITY.

BY ALMITATE (POTENTIAL).

PALMITATE (POTENTIAL).
                                                                                                                                                                                                             2 (POTENTIAL).
EXTRACELLULAR .
3 (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Þ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   н.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             JUNG H.H., KOZAK C.A.,
A. 90:9305-9309(1993).
                                                                                                                                     EXTRACELLULAR (POTENTIAL)
7 (POTENTIAL)
                                                                                                                                                                                                   3 (POTENTIAL)
CYTOPLASMIC (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MORRISON
                                                                                                                          CYTOPLASMIC
                                                                                                                                                               CYTOPLASMIC
                                                                                                                                                                                                                                                       EXTRACELLULAR (POTENTIAL)
                                                                                                                                    (POTENTIAL
                                                                                                                                                                                          (POTENTIAL).
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                                                                                                                                                   (POTENTIAL)
                                                                                                                                                                       (POTENTIAL)
                                                                                                                                                                                                                                                (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   BREDER C.D.,
                                       Mismatches
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                                               DB 7;
.02e-262;
                                                                                                                                                                                                                                                                                                                                                                                                  G-PROTEIN COUPLED
                                                                                                                        (POTENTIAL)
                                                                                                                                                            (POTENTIAL).
                                                                                                                                                                                                (POTENTIAL).
                                                                                                                                                                                                                                    (POTENTIAL).
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                                                                                                                                                                              (POTENTIAL)
                                                                                                                                                                                                                   (POTENTIAL)
                                                                                                                                                                                                                                                                          GLYCOPROTEIN;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TAKEDA
                                                                                                                                                                                                                                                                                                                                                                                                                                              SE BY REDUCING CONDUCTANCE. I
                                                      Length
                                     Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  J.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       KLEE
                                                       372;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                       CALCIUM
                                    Gaps
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RATTUS NORVEGICUS (RAT).
RATTUS NORVEGICUS (RAT).
EUKARNOTA; METAZOA; CHORDATA; VERTEBRATA; TETEUKARNOTA; METAZOA; CHORDATA; VERTEBRATA; TETEUKARNOTATOR METAZOA; CHORDATATOR METAZOA; CHOR
                                                                                                                                                                                                                                          WANG J.B., JC
EPPLER C.M.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  STRAIN-SPRAGUE-DAWLEY; TISSUE-BRAIN; MEDLINE; 94307401.
BUNZOW J.R., SAEZ C., MORTRUD M., BOGRANDY D.K.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FUKUDA K., KATO S., MORI K., NIS MIYATA T., HOUTANI T., SUGIMOTO FEBS LETT. 343:42-46(1994).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MEDLINE; 94215703
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    STRAIN-WISTAR;
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MEDLINE; 94307400.
CHEN Y. FAN Y. LIU J., MESTEK A.,
FEBS LETT. 347:279-283(1994).
                                                                                                                                                                                                                                                                                                                                                                                                                                MEDLINE; 95096849.
LACHOWICZ J.E., SHEN Y., MONSMA F.J.,
J. NEUROCHEM. 64:34-40(1995).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SUBMITTED (JAN-1994)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          240
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WICK M.J., MINNERATH S.R., LIN X., ELDE R.P., BRAIN RES. MOL. BRAIN RES. 27:37-44(1994).
-!- FUNCTION: OPIOD RECEPTOR WITH A POTENTIAL
                                                                                       MEDLINE; 95182817.
                                                                                                                                                                                                                                                                                                                                           TISSUE-BRAIN;
                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A.
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1., UHL G.R.;
348:75-79(1994).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          259
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                                                                                                                                                                                                                                                                                   IMAI Y.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NISHI M.,
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                                                                                                                                                                                                                                                                                      PERSICO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TIAN M., KOZAK C.A.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SIBLEY
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-!- SUBCELLULAR LOCATION: I

-!- SUBCELLULAR ELCANGS TO

EMBL, DI6438; 6533355; --

EMBL; U05239; G451844; --

EMBL; U0913; G487965; --

EMBL; U07871; G606803; --

EMBL; U38144; G496220; --

EMBL; U3816; G557200; --

EMBL; L3816; G557200; --

EMBL; L29449; G510719; --
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Best Local
                                                                                                                                                                                              Matches
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CONFLICT
CONFLICT
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CARBOHYD
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PIR; $43655; $43655.

GCRDB; GCR_0834; -.

GCRDB; GCR_0898; -.

GCRDB; GCR_0912; -.

PROSITE; BS00237; G_PROTEIN_RECEPTOR.

G-PROTEIN COUPLED RECEPTOR; TRANSMERANE; GLYCOPROTEIN;
                                                                                                                                                                                                                                                                                                    LIPID
CARBOHYD
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                                                                                                                                                                                                                                  SEQUENCE
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  241
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                                                                                                195
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NUMBER OF BRAIN FUNCTIONS, INCLUDING INSTINCTIVE BEHAVIOURS AND EMOTIONS. THE ACTIVITY OF THIS RECEPTOR IS MEDIATED BY G PROTEIN WHICH INHIBITS ADENYLYL CYCLASE.
TISSUE SPECIFICITY: HIGHLY EXPRESSED IN SEVERAL BRAIN AREAS.
                                                                                                                                                                   tkmktatniyifnlaladtlvlltlpfggtdillgfwpfgnalcktviaidyynmftstf
                                                                            TLTMMSVDRYIAVCHPVKALDFRTPLKAKIINICIWLLSSSVGISAIVLGGTKVREDVDV
                                                                                                                              tltamsvdryvaichpiraldvrtsskaqavnvaiwalasvvgvpvaimgsaqv-edee-
||| ||||||:||:||| ||: || :|: || ||:: ::|:: | || :
                                                                                                                                                        TKMKTATNIYIFNLALADALVTTTMPFQSTVYLMNSWPFGDVLCKIVISIDYYNMFTSIF
                   pilyafldenfkacfrkfccasslhremqvsdrvrsiakd
                                     XNLRRITRLVLVVVAVEVVCWTPIHIFILVEALGSTSHSTAALSSXYFCIALGYTNSSLN
                                                  PILYAFLDENFKRCFRDFCFPLKMXMERXSTSRVRNTVQD
                                                                                                                                                                                              l Similarity
174; Conse
                                                                                                                                                                                                                                  348
367 AA;
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122
144
186
                                                                                                                                                                                              60.3%;
larity 62.1%;
Conservative
                                                                                                                                                                                                                                                     HIGHLY EXPRESSED IN SEVERAL BRAIN AREAS.
N: INTEGRAL MEMBRANE PROTEIN.
TO FAMILY 1 OF G-PROTEIN COUPLED RECEPTORS
                                                                                                                                                                                                                                    WW;
                                                                                                                                                                                                                                                                                                                                                                                                   2 (POTENTIAL).
EXTRACELLULAR (
3 (POTENTIAL).
CYTOPLASMIC (POTENTIAL).
4 (POTENTIAL).
                                                                                                                                                                                             Score 1345; DB 7;
Pred. No. 2.01e-241;
46; Mismatches 55;
                                                                                                                                                                                                                                                                                                                       7 (POTENTIAL).
CYTOPLASMIC (F
BY SIMILARITY.
                                                                                                                                                                                                                                                                                                                                                            5 (POTENTIAL) CYTOPLASMIC (FOTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                         1 (POTENTIAL)
CYTOPLASMIC (FOTENTIAL)
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G -> R (IN

L -> V (IN

S -> P (IN

S -> T (IN
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5 (POTENTIAL)
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7 (POTENTIAL)
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                                                                                                                                                                                                                                                                                                              PALMITATE (POTENTIAL).
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REF. 2
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REF. 3
CRC32;
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01-JUN-1994 (REL. 29, L
01-FEB-1996 (REL. 33, L
PROBABLE OPIOID RECEPTO
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EMBL; D31667; G808874; -.
EMBL; D31666; G808874; JOINED.
EMBL; X91813; G1008982; -.
EMBL; U14165; G540093; -.
                                                                                                                                                                                                                                                                                                                                                      STRAIN-BALB/C; TISSUE-SPLEEN;
HALFORD W.P., GEBHARDT B.M., CARR D.J.J.;
SUBMITTED (ANG-1994) TO EMBL/GENBANK/DDBJ DATA BANKS.
-!- FUNCTION: OPIOD RECEPTOR WITH A POTENTIAL ROLE IN MODULATING A NUMBER OF BRAIN FUNCTIONS, INCLUDING INSTINCTIVE BEHAVIOURS AND EMOTIONS. THE ACTIVITY OF THIS RECEPTOR IS MEDIATED BY G PROTEIN
                                                                                                                                TRANSMEM
                                                                                                                                                                                                                                                            PROSITE; PS00237; G_PROTEIN_RECEPTOR.
G-PROTEIN COUPLED RECEPTOR; TRANSMEMBRANE; GLYCOPROTEIN;
                                                                                                                                                                                             DOMAIN
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                                                                                                                                                                                                                                                                                                                                                                                                                                      MATTHES H.W.D.;
SUBMITTED (SEP-1995)
                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A.
STRAIN-SPRAGUE-DAWLEY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MEDLINE; 95100967.
NISHI M., TAKESHIMA
BIOCHEM. BIOPHYS. RI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A.
SIRAIN-C57BL/6N; TISSUE-BRAIN;
STASUDA K., JONES E., REISINE T
SUBMITTED (JAN-1994) TO EMBL/G
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   OOR.
MUS MUSCULUS (MOUSE).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
EUTHERIA; RODENTIA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N
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               77
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SUBCELULAR LOCATION: INTEGRAL MEMBRANE PROTEIN.
SIMILARITY: BELONGS TO FAMILY 1 OF G-PROTEIN COL
tkmktatniyifnlaladtlvllttlpfqgtdillgfwpfgnalcktviaidyynmftstf
                             ch 60.3%;
l similarity 62.1%;
174; Conservative
                                                                                                                                                                                                                                                                          GCR_0891; :
E; PS00237;
                                                                  STANDARD;
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TO EMBL/GENBANK/DDBJ
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, LAST SEQUENCE UP
, LAST ANNOTATION
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CYTOPLASMIC (P
BY SIMILARITY.
PALMITATE (POT
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EXTRACELLULAR (POTENTIAL)
7 (POTENTIAL).
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CYTOPLASMIC (POTENTIAL).
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N. 205:1353-1357(1994).
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No. 5.
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Pred. No. 0.00e+00;
35; Mismatches 11
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PIR; A36814; GNWYCH.
POLYPROTEIN; ELYCOPROTEIN; RI
COAT PROTEIN; ENVELOPE PROTE
NONSTRUCTURAL PROTEIN.
TATT MATE 1
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POLG_HCVH STANDARD; PRI; 3011 AA.

P27958;

01-AUG-1992 (REL. 23, CREATED)

01-AUG-1994 (REL. 23, LAST SEQUENCE UPDATE)

01-FEB-1994 (REL. 28, LAST ANNOTATION UPDATE)

01-FEB-1994 (REL. 28, LAST ANNOTATION UPDATE)

01-FEB-1994 (REL. 28, LAST ANNOTATION UPDATE)

PROTEIN (ENVELOPE PROTEIN %); MAJOR ENVELOPE PROTEIN E; NONSTRUCTURAL PROTEIN (SNS, NS2, NS4 AND NS4B; HELICASE (NS3); RNA-DIRECTED RNA POLYMERASE (EC 2.7.7.48) (NS5)).

HEPATITIS C VIRUS (ISOLATE H) (HCV).

VIRIDAE; SS-RNA ENVELOPED VIRUSES; POSITIVE-STRAND; PLAVIVIRIDAE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1507
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                                                           CARBOHYD
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EUNCTION: THE SMALL PROTEINS NS2A, NS2B, NS4A AND NS4B ARE HIDROPHOBIC, SUGGESTING A POSSIBLE MEMBRANE-RELATED FUNCTION. NS3 AND MS5 MAY ELAY A ROLE IN THE VIRAL RNA REPLICATION. SUBCULT: THE VIRION OF THIS VIRUS IS A NUCLEOCAPSID COVERED BY LIPOPROTEIN ENVELOPE. THE ENVELOPE CONSISTS OF TWO PROTEINS: PROTEIN M AND GLYCOPROTEIN E. THE NUCLEOCAPSID IS A COMPLEX OF PROTEIN C AND MRNA.

L; M67463, G329738; -.
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CAPSID PROTEIN C (POTENTIAL).

MATRIX PROTEIN (POTENTIAL).

MAJOR ENVELOPE PROTEIN E (POTENTIAL).

NONSTRUCTURAL PROTEIN NS2 (POTENTIAL).

NONSTRUCTURAL PROTEIN NS2 (POTENTIAL).

NONSTRUCTURAL PROTEIN NS4 (POTENTIAL).

NONSTRUCTURAL PROTEIN NS4A (POTENTIAL).

NONSTRUCTURAL PROTEIN NS4A (POTENTIAL).

NONSTRUCTURAL PROTEIN NS4B (POTENTIAL).

RNA-DIRECTED RNA POLYMERASE (NS5)
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/label= Thr, Ala
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Misc_difference 418
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Misc_difference
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                                spvftdnssppavpgsfqvahlhaptgsgkstkvpaayaakgykvlvlnpsvaatlgfga
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ggrhlifchskkkcdelaaklvalginavayyrgldvsviptsgdvvvvstdalmtgftg
                                                                                                      YMSKAHGIDPNIRTGVRTITTGAPVTYSTYGKFLADGGCSGGAYDIIICDECHSTDSTTI
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38; Mismatches 13
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FFY Misc_difference 1215

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FFY Misc_difference 2144

FFY Misc_difference 2146

FFY Misc_difference 2166

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Release 2.1D John F. Collins, Biocomputing Research Unit. Copyright (c) 1993, 1994, 1995 University of Edinburgh, U.K. Distribution rights by IntelliGenetics, Inc.

Run on: MPsrch_pp protein - protein database search, using Smith-Waterman algorithm Tue Aug 26 07:54:10 1997; MasPar time 13.34 Seconds 591.383 Million cell updates/sec

Description:
Perfect Score:
Sequence: Title: Tabular output not generated. >US-08-292-694A-4 (1-372) from US08292694A.pep 2743 1 MELVPSARAELQSSPLVNLS......TRERVTACTPSDGPGGGAAA 372

Scoring table: PAM 150 Gap 11

Searched: 59021 segs, 21210388 residues

Post-processing: Minimum Match 0% Listing first 45 summaries

Database:

swiss-prot34
1:part1 2:part2 3:part3 4:part4 5:part5 6:part6 7:part7
8:part8 9:part9 10:part10 11:part11

Statistics: Mean 49.691; Variance 96.228; scale 0.516

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

222298	1	Result
2657 2558 1729 1721 1721 1704 1604 1502 1592 1471 1471 1460 970 970 957 957	2743	Score
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ALIGNMENTS

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EMBL; 107271; -; NOT_ANNOTATED_CDS.

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EMBL; 125635; G442326; -.

EMBL; S66181; G435782; -.

PIR; S48227; B48227.

PIR; B48227; B48227.

GCROB; GCR_0493; -.

GCROB; GCR_0493; -.

GCROB; GCR_054; -.

GCROB; GCR_0634; -.

GCROB; GCR_0634; -.

GCROB; GCR_0634; -.

GCROB; GCR_0634; -.

GCROB; GCR_0843; -.

GCROB; GCR_0843; -.

BOSITE; PS00237; G_PROTEIN_RECEPTOR.

PROSITE; PS00237; G_PROTEIN_RECEPTOR.

PROSITE; PS00237; G_PROTEIN_RECEPTOR.
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                                                                                                                                           rsvrllsgskekdrslrritrmvlvvvgafvvcwapihifvivwtlvdinrrdplvvaal
                                                                   tpsdgpgggaaa
                                                                                         HLCIALGYANSSLNPVLYAFLDENFKRCFRQLCRTPCGRQEPGSLRRPRQATTRERVTAC
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larity 100.0%;
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              STANDARD;
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PALMITATE (POTENTIAL).
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. No. 0.00e+00;
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EUKARYOTA; METAZOA;
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STRAIN-SPRAGUE-DAWLEY; TISSUE-BRAIN;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MEDLINE; 93351652.
FUKUDA K., KATO S., MORI K., NISHI M., TAKESHIMA
FEBS LETT. 327:311-314(1993).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MEDLINE; 94322412.
ABCOD M.E., NOEL M.A., FARNSWORTH J.S.,
J. NEUROSCI. RES. 37:714-719(1994).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    EUTHERIA; RODENTIA.
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DOMAIN
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EMBL; U00475; G514211; -.
PIR; S34592; S34592.
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TRANSMEM
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DOMAIN
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 VPINVMAVTQPRDGAVVCMLQFPSPSWYWDTVTKICVFLFAFVVPILIITVCYGLMLLRL
                      361;
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28, LAST SEQUENCE UPDATE)
31, LAST ANNOTATION UPDATE)
RECEPTOR (DOR-1) (OPIOID RE
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RECEPTOR; TRANSMEMBRANE; GLYCOPROTEIN;
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POTENTIAL.

BY SIMILARITY.

BY SIMITARE (POTENTIAL).

PALMITATE (POTENTIAL).
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Pred. No. 0.00e+00;
5; Mismatches 6
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**X MEDLINE; 95107267.

**X MEDLINE; 95107267.

**A LANNES B., MICHELETI G., KIEFFER B.;

**MOL. PHARMACOL. 46:1015-1021(1994).

-!- FUNCTION: INHIBITS NEUROTRANSMITTER RELEASE BY REDUCING STEREOSELECTIVE. RECEPTOR FOR ENKEPHALINS.

-!- SUBCELLULAR LOCATION: INTEGRAL MEMBRANE PROTEIN.

-!- SUBCELLULAR LOCATION: INTEGRAL MEMBRANE PROTEIN.

EMBL; U07882; 6497314; -.

EMBL; U07882; 6497314; -.

EMBL; U07882; 6497314; -.

EMBL; U10504; E162517; -.
                     CONFLICT
CONFLICT
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                                                                               CARBOHYD
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01-FEB-1995 (REL. 3
01-FEB-1995 (REL. 3
01-FEB-1996 (REL. 3
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TISSUE=CEREBRAL CORTEX,
MEDLINE; 94260835.
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EUKARYOTA; METAZOA; CHORDATA;
EUTHERIA; PRIMATES.
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RECEPTOR; TRANSMEMBRANE;
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 WW
                                       POTENTIAL.
BY SIMILARITY.
PALMITATE (POT
F -> C (IN REF
PG -> AR (IN R
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                Ħ
                               PG
    PALMITATE (POTENTIAL),

F -> C (IN REF. 2),

PG -> AR (IN REF. 2),

P -> A (IN REF. 2),

R -> A (IN REF. 2).
                                                                                                                                        CYTOPLASMIC
                                                                                                                                                              EXTRACELLULAR (POTENTIAL)
7 (POTENTIAL)
                                                                                                                                                                                                                        EXTRACELLULAR (POTENTIAL)
5 (POTENTIAL).
                                                                                                                                                                                                                                                                                               EXTRACELLULAR (POTENTIAL)
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                                                                                                                           POTENTIAL.
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EXTRACELLULAR (POTENTIAL).
CFF92985
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                                                                                                                                                                                                 (POTENTIAL).
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                                                                                                                                                                                                                                                                  (POTENTIAL).
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                                                                                                                                                                                                                                                                                                                                                                                              GLYCOPROTEIN;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       BABIN
W.R.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     E., NGUYEN
YAMAMURA H.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        REDUCING
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                                                                                                                                     FOR BETA-ENDORPHIN.

-!- SUBCELLULAR LOCATION: IN-
-!- SIMILARITY: BELONGS TO PY
EMBL; L25119; G452073; --
EMBL; L25101; G459832; --
GCRDB; GCR_0865; --
GCRDB; GCR_0966; --
MIM; 600018; -.

MIM; 600018; -.

PROSITE; PS0023;; G_PROTEIN_RECEPTOR.
G-PROTEIN COUPLED RECEPTOR; TRANSMEMBRANE;
PHOSPHORYLATION; LIPOPROTEIN; PALMITATE.
DOMAIN 1 66 EXTRACELLULAR
DOMAIN 67 96 1 (POTENTIAL)
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Best Local Similarity
Matches 347; Conser
                                                                                                                                                                                                                                                          OPRM_HUMAN
P35372;
01-JUN-1994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MEDLINE;
WANG J.-I
                                                                                                                                                                                                                                                                                                                                                           MESTEK A.
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TISSUE=BRAIN;
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01-JUN-1994 (REL. 29, LAST SEQUENCE UI
01-NOV-1995 (REL. 32, LAST ANNOTATION
MU-TYPE OPICID RECEPTOR (MOR-1).
00PMM1 OR MOR1.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SAPIENS (HUMAN).
RYOTA; METAZOA; CHORDATA;
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                                                                                                                                                                                                                                                                                                                                                         JR., HURLEY
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No. 0.
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                                                                          GLYCOPROTEIN;
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01-F3B-1994 (REI
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MU-TYPE OPIOID F
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                                                                                                                                             LT 5
OPRM_RAT
P33535;
                         FUKUDA K.,
                                                                                   RATTUS NORV
EUKARYOTA;
                                                                                                                                                                                                                         258
SEQUENCE FROM TISSUE-BRAIN;
                                                          SEQUENCE FROM N.A.
                                                                            EUTHERIA;
                                                                                                                                                                                        318
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                                          MEDIINE;
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                                                  SSUE=BRAIN;
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                                                                                                                                                                                                                         RITRMVLVVVGAFVVCWAPIHIFVIVWTLVDINRRDPLVVAALHLCIALGYANSSLNPVL
                                                                                                                                                                                       YAFLDENFKRCFRQLCRTPCGRQEPGSLRRPRQATTRERVTA
                                                                                                                                                                                                       yafldenfkrcfrefciptssniegqnstrirqnt-rdhpst 378
                                                                                                                                                                                                                                                                                                                                                                                                220;
                                                                                    NORVEGICUS (RAT)
OTA; METAZOA; CHO
                                                                                                                                                                                                                                                                                                                                                                                                        Similarity
                         93351652.
., KATO S., MORI K.,
r. 327:311-314(1993)
                                                                                                                                                                                                                                                                                                                                                                                                                                12
33
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234
                                                                            RODENTIA.
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331
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331
                                                                                                                    (REL. 28, CREATED)
(REL. 28, LAST SEQUENCE UPDATE)
(REL. 29, LAST ANNOTATION UPDATE)
                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                 ÃÃ;
         N.A.
                                                                                                              RECEPTOR
                                                                                                                                                        STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                        63.0%;
64.3%;
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282
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44764
                                                                                     CHORDATA; VERTEBRATA;
                                                                                                              (MOR-1)
                                                                                                                                                                                                                                                                                                                                                                                                                                   MW.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CYTOPLASMIC (POTENTIAL).
2 (POTENTIAL).
EXTRACELLULAR (POTENTIAL).
3 (POTENTIAL).
CYTOPLASMIC (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                 POTENTIAL.
POTENTIAL.
POTENTIAL.
N -> D (IN REF. 2).
V -> L (IN REF. 2).
W; 3F40D610 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                 Pred.
58; 1
                                                                                                                                                                                                                                                                                                                                                                                                         Score 1729;
Pred. No. 0.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   POTENTIAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       4 (POTENTIAL) .
EXTRACELLULAR (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    7 (POTENTIAL)
CYTOPLASMIC (
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                                    NISHI
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                                                                                                                                                        PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SIMILARITY
                                                                                                               (OPIOID
                                                                                                                                                                                                                                                                                                                                                                                                Mismatches
                                    .
X
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                                                                                                                                                                                                                                                                                                                                                                                                         DB 7;
1.00e+00;
                                      TAKESHIMA H.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (POTENTIAL).
                                                                                                               RECEPTOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (POTENTIAL)
                                                                                                                                                          AA
                                                                                      TETRAPODA; MAMMALIA;
                                                                                                                                                                                                                                                                                                                                                                                                   61;
                                                                                                                                                                                                                                                                                                                                                                                                                  Length
                                                                                                                                                                                           359
                                                                                                                в)
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                                                                                                                 (MUOR1).
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SER TERRETER TO SERVICE TO SERVIC
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Best Local
Matches
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WANG J.-B
PROC. NAT
[3]
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MOL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            -:- SUBCELLULAR LOCATION: INTEGRAL MEMBRANE PROTEIN.
-:- TISSUE SPECIFICITY: BRAIN, WITH HIGH CONCENTRATIONS IN THE BRAINSTEM AND CEREBRUM. NOT DETECTED IN CEREBELLUM.
-:- SIMILARITY: BELONGS TO FAMILY 1 OF G-PROTEIN COUPLED RECEPTORS.
EMBL; D16349; G391867; -.
EMBL; L120684; G409150; -.
EMBL; L13069; G348251; -.
EMBL; L12053; G403574; -.
EMBL; L12455; G403772; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MEDLINE; 93341493.
CHEN Y., MESTEK A., LIU J., HU
MOL. PHARMACOL. 44:8-12(1993).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STRAIN=SPRAGUE-DAWLEY; TISSUE=BRAIN; BUNZOW J.R., GRANDY D.K., KELLY M.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PROSITE; F
G-PROTEIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SUBMITTED (SEP-1993) TO EMBL/GENBANK/DDBJ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.
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DOMAIN
TRANSMEM
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MEDLINE; 94059560.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           rissue-brain;
                                                                                                                                                                                         CARBOHYD
CONFLICT
SEQUENCE
                                                                                                                                                                                                                                                                                       CARBOHYD
CARBOHYD
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TRANSMEM
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TRANSMEM
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CARBOHYD
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                                                                                                                                                                                                                                                                                                                                                                                                            DOMAIN
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                                                                                                                                                                                                                                                                   CARBOHYD
                                                 51
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J.-B., IMAI Y., E
NATL. ACAD. SCI.
    GANASGSPGARSASSLALAIAITALYSAVCAVGLLGNVLVMFGIVRYTKLKTATNIYIFN
                           ggndslcpqt-gspsmvtaitimalysivcvvglfgnflvmyvivrytkmktatniyifn 109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PS00237;
                                                                                                   h 62.7%;
Similarity 65.7%;
216; Conservative
                                                                                                                                                                                            245
398
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                                                                                                                                                                                                 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LIPOPROTEIN;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    G_PROTEIN_RECEPTOR.
RECEPTOR; TRANSMEMBRANE;
                                                                                                                                                                                                                                             193
209
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TS NEUROTRANSMITTER RELEASE INCREASING POTASSIUM ION CO
                                                                                                                                                                                                   44494
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TISSUE-OLFACTORY
                                                                                                                                                                                                   WW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AKIL H.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                HURLEY
                                                                                                                                                                                                                                                                                          PAIMITATE (POTENTIAL).
POTENTIAL.
POTENTIAL.
POTENTIAL.
                                                                                                     Score
Pred.
56; M
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EXTRACELLULAR (POTENTIAL).
3 (POTENTIAL)
                                                                                                                                                                                                                         POTENTIAL.
V -> I (IN
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7 (POTENTIAL)
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5 (POTENTIAL).
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                                                                                                                                                                                                                                                                                                                                                                                             BY SIMILARITY
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                                                                                                     e 1721; DB 7; 1
, No. 0.00e+00;
Mismatches 54;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ч
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   . A.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      BULB;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ΠĀ
                                                                                                                                                                                                      REF. 3
CRC32;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GLYCOPROTEIN;
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                                                                                                                                                  Length 398;
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                                                                                                            Indels
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                                                                                                                                                                                                                                                                                STRAIN-C57BL/6; TISSUE-LIVE
STRAIN-C57BL/6; TISSUE-LIVE
MEDLINE; 94377496.
MIN B.H., AUGUSTIN L.B., FF
PROC. NATL. ACAD. SCI. U.S.
     TRANSMEM
DOMAIN
TRANSMEM
DOMAIN
TRANSMEM
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DOMAIN
                                                                                                                           EMBL; U10556; G555069; JOINED.
EMBL; U10558; G555069; JOINED.
EMBL; U10559; G555069; JOINED.
EMBL; U10560; G555069; JOINED.
EMBL; U26915; G1055231; -...
PROSITE; PS00237; G_PROTEIN, RECEPTOR.
G-PROTEIN COUPLED RECEPTOR; TRANSMEMBRANE; GLYCOPROTEIN;
                                                                                                                                                                                                             MEDLINE; 95377399.

ROSSI G.C., PAN Y.X., BROWN G.P., PASTERNAK G.W.;
FEBS LETT. 369:192-196(1995).

-!- FUNCTION: INHIBITS NEUROTRANSMITTER RELEASE BY REDUCING ION CURRENTS AND INCREASING POTASSIUM ION CONDUCTANCE. F
                                                                                                                       DOMAIN
                                                                                                                                                                                        -1- SUBCELLULAR LOCATION: INTEGRAL MEMBRANE PROTEIN.
                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                   OPRM_MOUSE STANDARD; PRI; 3
P4.2866;
01-NOV-1995 (REL. 32, CREATED)
01-NOV-1995 (REL. 32, LAST SEQUENCE UP
MO-TYPE OPIOID RECEPTOR (MOR-1).
                                                                                                                                                                                                                                                                                                        [1]
SEQUENCE FROM N.A.
SEQUENCE FROM N.A.
TISSUE-LIVER;
                                                                                                                                                                                                                                                               TISSUE-BRAIN;
                                                                                                                                                                                                                                                                                                                                                                                                                                                  331
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   271
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MUSCULUS (MOUSE).
ARYOTA; METAZOA; C
                                                                                                                                                                                                                                                                                                                                                                                                                                               QLCRTPCGRQEPGSLRRPRQATTRERVTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                             efciptsstiegqnstrvrqnt-rehpst
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CHPVKALDFRTPAKAKLINICIWVLASGVGVPIMVMAVTQPRDGAVVCMLQFPSPSWYWD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LALADALATSILPFQSAKYLMETWPFGELLCKAVLSIDYYNMFTSIFTLTMMSVDRYIAV
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209
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303
311
328
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                                                                                                                                                                                                                                                                                 FELSHEIM R.F., FUCHS J.A., S.A. 91:9081-9085(1994).
                         5 (POTENTIAL).
CYTOPLASMIC (PO
                                         EXTRACELLULAR (
7 (POTENTIAL)
CYTOPLASMIC (
                                                       EXTRACELLULAR (POTENTIAL)
3 (POTENTIAL)
CYTOPLASMIC (POTENTIAL).
4 (POTENTIAL).
            EXTRACELLULAR (POTENTIAL)
7 (POTENTIAL)
                                                                                           PALMITATE.
EXTRACELLULAR (POTENTIAL)
1 (POTENTIAL).
CYTOPLASMIC (POTENTIAL).
2 (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                         VERTEBRATA; TETRAPODA; MAMMALIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                               359
                                                                                                                                                                                                                                                                                                                                                                                                                                                              376
                                                                                                                                                                                                                                                                                                                                                                                    UPDATE
                                                                                                                                                                                                                                                                                                                                                                                                              398
                                                                                                                                                                                                                                                                                                                                                                             UPDATE)
(POTENTIAL)
                               (POTENTIAL).
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                                               (POTENTIAL
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                                                                                                                                                                                        RECEPTORS
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RECEPTOR
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AC COS GREET DITTERS OF STREET STREET
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Best Local S
Matches 21
STRAIN-SPRAGUE-DAWLEY; TISSUE-BRAIN; MEDLINE; 94052210.
MENG F., XIE G.-X., THOMPSON R.C., MWATSON S.J., AKIL H.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                      OPRK_RAT

p34975;

O1-FEB-1994

O1-FEB-1996

O1-FEB-1996

KAPPA-TYPE OI

ROR-D.
                                                                                                  LIU-CHEN L.
BIOCHEM. J.
                                                                                                                                                STRAIN-SPRAGUE-DAWLEY; MEDLINE; 94059009.
                                                                                                                                                                                                       SEQUENCE FROM N.A.
MEDLINE; 93374033.
MINAMI M., TOYA T., KATAO Y.,
KANEKO S., SATOH M.;
FEBS LETT. 329:291-295(1993).
                                                                    SEQUENCE FROM N.A.
                                                                                                                                                                             SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                     MEDLINE; 94059008.
CHEN Y., MESTEK A., LIU J., YU
BIOCHEM. J. 295:625-628(1993).
                                                                                                                                 LI S., ZHU
                                                                                                                                                                                                                                                                                                                                                                                                                    RATTUS NORVEGICUS EUKARYOTA; METAZOA
                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                         EUTHERIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
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LIPID
                                                                                                                                                                                                                                                                                                                                                          ISSUE-BRAIN;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    342
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   212;
                                                                                                                                94059009.
HU J., CHEN C.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                     94 (REL.
96 (REL.
9 OPIOID
                                                                                              295:629-633(1993)
                                                                                                                                                                                                                                                                                                                                                                                                                         METAZOA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (REL.
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351
9
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38
46
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                            . 28, CREATED)
. 28, LAST SEQUENCE UPD
. 33, LAST ANNOTATION (
D RECEPTOR (KOR-1).
                                                                                                                                                                                                                                                                                                                                                                                                                                       (RAT)
                                                                                                                                                                                                                                     KATAO Y., MAEKAWA
                                                                                                                                                                                                                                                                                                                                                                                                                    CHORDATA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   62.6%;
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3519
310
310
310
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    44421
                                                                                                                                                          TISSUE-BRAIN,
                                                                                                                            CHEN Y.-W.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WW;
              R.C., MANSOUR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    55
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PALMITATE (
POTENTIAL.
POTENTIAL.
POTENTIAL.
POTENTIAL.
POTENTIAL.
7; C0211489
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Pred. No. 0.
                                                                                                                                                                                                                                                                                                                                                                                                               VERTEBRATA; TETRAPODA; MAMMALIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRT;
                                                                                                                                                                                                                                                                                                                     F.;
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7.
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              Α.,
                                                                                                                                                                                                                                       NAKAMURA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DB 7;
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             GOLDSTEIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   49;
                                                                                                                           ASHBY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length
                                                                                                                                                                                                                                     s;
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                                                                                              Query Match
Best Local S
                                                                                        Matches
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EMBL; D16829; G404116; ...
EMBL; L122536; G425189; ...
EMBL; L122536; G425189; ...
EMBL; U10442; G403487; ...
EMBL; U16534; G415310; ...
EMBL; U17995; G727260; ...
EMBL; U17995; G727260; JOIN
EMBL; U17994; G727260; JOIN
EMBL; U17994; G727260; JOIN
PIR; S36143; S36143.
PIR; S38825; S38825.
                                                                                                                                                PHOSPHORYLATION;
DOMAIN 1
TRANSMEM 56
DOMAIN 96
DOMAIN 196
TRANSMEM 155
TRANSMEM 174
DOMAIN 197
TRANSMEM 177
TRANSMEM 223
DOMAIN 223
DOMAIN 276
DOMAIN 300
TRANSMEM 276
DOMAIN 300
TRANSMEM 312
DOMAIN 301
DOMAIN 301
DOMAIN 312
DOMAIN 312
DOMAIN 314
DOMAIN 314
DISULFID 345
CARBOHYD 39
                                                                                                                                                                                                                                                                                                                                                                                                                                            PROC. [5]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              STRAIN=SPRAGUE-DAWLEY; MEDLINE; 95204422.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STRAIN=WISTAR; TISSUE=BRAIN;
MEDLINE; 93380575.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM
                                                                                                                                                                                                                                                                                                               GCRDB; GCR_0804; -.
PROSITE; PS00237; G_PROTEIN_RECEPTOR
G-PROTEIN COUPLED RECEPTOR; TRANSMEM
                                                                                                                                                                                                                                                                                                                                     GCRDB; GCR_0636; -. GCRDB; GCR_0724; -. GCRDB; GCR_0790; -.
                                                                                                                       CARBOHYD
CONFLICT
CONFLICT
SEQUENCE
         177
                        107
                                        117
                                                        47
                                                                        57
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NATL.
                                                                 aipviitavysvvfvvglvgnslvmfviirytkmktatniyifnlaladalvtttmpfqs 116
avylmnswpfgdvlckivisidyynmftsiftltmmsvdryiavchpvkaldfrtplkak 176
                                                        AKYLMETWPFGELLCKAVLSIDYYNMFTSIFTLTMMSVDRYIAVCHPVKALDFRTPAKAK
                                                                                         207;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FROM N.A.
                                                                                                 Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TAKESHIMA H., FU. 330:77-80(1993)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ACAD.
                                                                                                                      345
380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             N.A
                                                                                         Conservative
                                                                                                                         AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SCI.
                                                                                                                                                                                                                                                                                                        LIPOPROTEIN;
                                                                                                                                                                  58.5%;
                                                                                                                          42688
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                                                                                                                                                                                                                                                                                                                                                                                JOINED.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FUKUDA
                                                                                                                          Ψ,
                                                                                                                                                                                                                                                                                                                TRANSMEMBRANE; GLYCOPROTEIN;
                                                                                         Score 1604; DB 7;
pred. No. 0.00e+00;
51; Mismatches 45
                                                                                                                          V -> L (IN
C -> Y (IN
7; EE858A46
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              90:9954-9958(1993).
                                                                                                                                                                                                                         EXTRACELLULAR (POTENTIAL).
5 (POTENTIAL)
                                                                                                                                                                                           EXTRACELLULAR (POTENTIAL).
7 (POTENTIAL)
                                                                                                                                                 POTENTIAL.
                                                                                                                                                                  PALMITATE
                                                                                                                                                                                 7 (POTENTIAL).
                                                                                                                                                                                                         CYTOPLASMIC 6 (POTENTIAL
                                                                                                                                                                                                                                         CYTOPLASMIC (
4 (POTENTIAL)
                                                                                                                                                                                                                                                                 EXTRACELLULAR (POTENTIAL)
                                                                                                                                                                                                                                                                                 CYTOPLASMIC
                                                                                                                                                                                                                                                                                                  EXTRACELLULAR (POTENTIAL).
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                                                                                                                                                                                                                                                                                                          PALMITATE
                                                                                                                                                                                                                                                                                          (POTENTIAL)
                                                                                                                                                                                                                                                                           (POTENTIAL)
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                                                                                                                                                                            SIMILARITY
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                                                                                                                          N REF. 2).
N REF. 3).
5 CRC32;
                                                                                                                                                                  (POTENTIAL)
                                                                                                                                                                                                                                                   (POTENTIAL).
                                                                                                                                                                                                                                                                                  (POTENTIAL).
                                                                                                                                                                                                                   (POTENTIAL).
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                                                                                            45;
                                                                                                           Length 380;
                                                                                            Indels
                                                                                             6;
                                                                                            Gaps
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                                                                                                                                                                                       MEDLINE; 95174504.

X MEDLINE; 95174504.

A ZHU J., CHEN C., XUU J.C., KUNAPULI S., DERIEL J.K., LIU-CHEN L.-Y.;

A ZHU J., CHEN C., XUZU J.C., KUNAPULI S., DERIEL J.K., LIU-CHEN L.-Y.;

A ZHU J., CHEN C., XUZU J.C., KUNAPULI S., DERIEL J.K., LIU-CHEN L.-Y.;

A ZHU J., CHEN C., XUZU J.C., KUNAPULI S., DERIEL J.K., LIU-CHEN L.-Y.;

A ZHU J., CHEN C., XUZU J.C., KUNAPULI S., DERIEL J.K., LIU-CHEN L.-Y.;

A ZHU J., CHEN C., XUZU J.C., KUNAPULI S., DERIEL J. N. ALGUSIN BE REDETINE PROTEIN CONDUCTANCE. RECEPTOR S.

C. I- FUNCTIONAL AND INCREASING POTASSIUM ION CONDUCTANCE. RECEPTORS.

C. I- SUBCELULAR LOCATION: INTEGRAL MEMBRANE PROTEIN.

C. I- SUBCELLULAR LOCATION: INTEGRAL MEMBRANE PROTEIN.

C. I- SIMILIARITY: BELONGS TO FAMILY 1 OF G-PROTEIN COUPLED RECEPTORS.

DR EMBL; U11053; G532060; ".

EMBL; U11053; G532060; ".

EMBL; U17298; G596070; ".

EMBL; U17298; G596070; ".

EMBL; U17298; G722618; ".

PAIM; 165196; ".

R MIM; 165196; ".
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  P41145;
01-FEB-1995 (REL. 3
01-FEB-1995 (REL. 3
01-FEB-1996 (REL. 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                          MEDLINE; 94338360.
MANSSON E., BARE L.A.,
BIOCHEM, BIOPHYS. RES.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       KAPPA-TYPE OPIOID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             OPRK_HUMAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        HOMO SAPIENS (HUMAN).
EUKARYOTA; METAZOA; C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              OPRK1 OR OPRK.
                                                                                                                                                                                                                                                                                                                                                                                MEDLINE; 95350200.
SIMONIN F., GAVERIAUS-RUFF C.,
MATTEI M.-G., CHARON G., BLOCH
PROC. NATL. ACAD. SCI. U.S.A. 9
                                                                                                                                                                    G-PROTEIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              EUTHERIA; PRIMATES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          296
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               223
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       167 LINICIWVLASGVGVPIMVMAVTQPRDGA-VV-CMLQFPSP--SWYWDTVTKICVFLFAF
                                                                                      TRANSMEM
DOMAIN
TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                            TISSUE=PLACENTA;
                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TISSUE-PLACENTA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          343
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           TRANSMEM
DOMAIN
TRANSMEM
DOMAIN
                                                                                                                                                                                                                                                                                                                                                 TISSUE=BRAIN;
                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A.
                                                                                                                                    TRANSMEM
                                                                                                                        DOMAIN
                                                                                                                                              DOMAIN
                                                                                                                                                           PHOSPHORYLATION;
  TRANSMEN
                                                        DOMAIN
                                                                   PRANSMEM
                                                                              DOMAIN
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                                                                                                                                                                                PS00237;
                                                                                                                                                                      COUPLED
   59
86
96
118
133
155
174
174
197
223
248
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. 31, LAST (
. 33, LAST (
D RECEPTOR
                                                                                                                                                           LIPOPROTEIN;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
    PROTEIN_RECEPTOR.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                       D.;
UN. 202:1431-1437(1994)
 EXTRACELLULAR (POTENTIAL).

5 (POTENTIAL).

CYTOPLASMIC (POTENTIAL).

6 (POTENTIAL).

EXTRACELLULAR (POTENTIAL).

7 (POTENTIAL).
                                                                                                                                                                        TRANSMEMBRANE;
                                                                     CYTOPLASMIC
4 (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                    , BEFORT K., LANNES
H B., KIEFFER B.;
92:7006-7010(1995).
                                                                                                                          CYTOPLASMIC
                                                                                                      EXTRACELLULAR
                                                                                                                                                  EXTRACELLULAR (POTENTIAL).
                                                                                                                                                             PALMITATE
                                                                      (POTENTIAL)
                                                                                           (POTENTIAL)
                                                                                                                 (POTENTIAL
                                                                                                                                       (POTENTIAL)
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                                                                                                                             (POTENTIAL).
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R B.;
                                                                                  (POTENTIAL).
                                                                                                       (POTENTIAL)
                                                                                                                                                                        GLYCOPROTEIN;
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Best Local S
Matches 21
                                                                                                                                  SEQUENCE FROM N.A.
MEDLINE; 95251663.
LIU H.C., LU S., AUGUST.
LOH H.H., WEI L.N.;
BIOCHEM. BIOPHYS. RES.
                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ol-FEB-1994 (REL. 28, CREATED)
Ol-FEB-1994 (REL. 28, LAST SEQUI
Ol-OCT-1996 (REL. 34, LAST AND
KAPPA-TYPE OPIOID RECEPTOR (KOR-
MUS MUSCULUS (MOUSE).
EUGRARYOFA; METAJOA; CHORDATA; VI
EUTHERIA; RODENTIA.
                                                                                                                                                                                                                                         MEDLINE; 95100967.
NISHI M., TAKESHIM
BIOCHEM. BIOPHYS.
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P33534;
01-FEB-1994
01-OCT-1996
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SEQUENCE
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       CHEM. BIODHYS. RES. COMMUN. 209:639-647(1995).

FUNCTION: INHIBITS NEUROTRANSMITTER RELEASE BY REDUCING C!
ION CURRENTS AND INCREASING POTASSIUM ION CONDUCTANCE. REC
FOR DYNORPHINS. MAY PLAY A ROLE IN AROUSAL AND REGULATION
AUTONOMIC AND NEUROENDOCRINE FUNCTIONS.
SUBCELLULAR LOCATION: INTEGRAL MEMBRANE PROTEIN.
TISSUE SPECIFICITY: BRAIN (NEOCORTEX, HIPPOCAMPUS, AMYGDAL
MEDIAL HABENULA, HYPOTHALAMUS, LOCUS CERTIFETTE
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NUCLEUS).
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     HYPOTHALAMUS, LOCUS CERULEUS, AND
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ANNOTATION UPDATE
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N. 205:1353-1357(1994).
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Pred. No. 0.
56; Mismatc
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E -> D (IN
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PALMITATE (POTENTIAL).
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                                                                                                                                                                  R.F.,
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                                                                                                                                                                                                                                                                                                                                                             TAKEDA J.,
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                                                                                                                                                                  CHEN H.C.,
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01-FEB-1995 (REL. 3
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CAVIA PORCELLUS (GU
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         111065; G348249; D31665; G808876; D31663; G808876; D31664; G808876; D31664; G908532; G77868; G998532; G77869; G998532; G9985252; G998525252; G998525252; G9985252; G998525252
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A48227; A48227
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             206;
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                                                                                                                                                                                                                                                                                363
L. 31, CREATED)
L. 31, LAST SEQUENCE UPDATE)
L. 32, LAST ANNOTATION UPDATE)
ID RECEPTOR (KOR-1).
(GUINEA PIG).
                                                                                                                                         STANDARD;
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66.7%;
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Pred. No. 0.00e+00;
51; Mismatches 46
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EXTRACELLULAR (
7 (POTENTIAL)
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5 (POTENTIAL).
CYTOPLASMIC (PO
6 (POTENTIAL).
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                                                                                                                                         PRT;
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4 (POTENTIAL)
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2 (POTENTIA)
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RESULT
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Best Local S
Matches 20
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GOLDSTEIN A., WATSON S.J., AKIL H.,
PROC. NATL. ACAD. SCI. U.S.A. 91:3779-3783(1994).
PROC. NATL. ACAD. SCI. U.S.A. 91:3779-3783(1994).
FONCTION: INHIBITS NEUROCHANGMITTER RELEASE BY REDUCING ION CONDUCTANCE. R
FON CURRENTS AND INCREASING POTASSIUM ION CONDUCTANCE. R
FOR DYNORPHING. MAY PLAY A ROLE IN AROUSAL AND REGULATIO.
AUTONOMIC AND NEUROCHOOLOGIES FUNCTIONS.
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DOMAIN
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MEDLINE; 94224825.
XIE G.X., MENG F., MANSOUR
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CARBOHYD
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 DPRX_HUMAN
P41146;
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SIMILARITY: BELONGS TO FAMILY 1 OF G-PROTEIN COUPLED RECEPTORS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AKYLMETWPEGELLCKAVLSIDYYNMFTSIFTLTMMSVDRYIAVCHPVKALDFRTPAKAK
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ALAIAITALYSAVCAVGLLGNVLVMFGIVRYTKLKTATNIYIFNLALADALATSTLPFQS
                                                                                                                                                                                                                                                                                                                    LINICIWYLASGYGYPIMYMAYTQPRDGA-VV-CMLQFPSPSW-YWDTYTKICYFLFAFV
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                         STANDARD;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
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4 (POTENTIAL).

EXTRACELLULAR (POTENTIAL).

5 (POTENTIAL).

CYTOPLASMIC (POTENTIAL).

6 (POTENTIAL).
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Pred. No. 0.00e+00;
55; Mismatches 49
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1 (POTENTIAL)
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01-FEB-1995 (REL. 31, LAST SEQUENCE UP
01-OCT-1996 (REL. 34, LAST ANNOTATION
PROBABLE OPIOID RECEPTOR.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    -!- SUBCELLULAR LOCATION: INTEGRAL MEMBRANE PROTEIN.
-!- SIMILARITY: BELONGS TO FAMILY 1 OF G-PROTEIN COUPLED RECEPTORS.
EMBL; X7130; G471317; -.
EMBL; U30185; G144497; -.
PIR; S43087; S43087.
GCRDB; GCR_0907; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A.

LEE P.H., ZHO J., LIU-CHEN L., CHANG K.;

SUBMITTED (JAN-1996) TO EMBL/GENBARK/DDBJ DATA BANKS.

SUBMITTED (JAN-1996) TO EMBL/GENBARK/DDBJ DATA BANKS.

-!- FUNCTION: OPTOD RECEPTOR WITH A POTENTIAL ROLE IN MODULATING INCLUDING INSTINCTIVE BEHAVIOURS A NUMBER OF BRAIN FUNCTIONS, INCLUDING INSTINCTIVE BY G PROTEMOTIONS. THE ACTIVITY OF THIS RECEPTOR IS MEDIATED BY G PROTEMOTIONS. THE ACTIVITY OF THIS RECEPTOR IS MEDIATED BY G PROTEMOTIONS. THE ACTIVITY OF THIS RECEPTOR IS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TISSUE-BRAIN STEM:
MEDILME: 94185768.
MOLLEREAU C., PARMENTIER M.,
CHALON P., CAPUT D., VASSART
FEBS LETT. 341:33-38(1994).
                                                                                                                                                                                                                                                                                                                            CARBOHYD
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                            CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                           DOMAIN
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NIAMOC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             HOSPHORYLATION;
225
                              227
                                                                165
                                                                                                 167
                                                                                                                                 105
                                                                                                                                                               107
                                                                                                                                                                                              45
                                                                                                                                                                                                                              47
                                                                                                                                                                                                             plglkvtivglylavcvggllqnclvmyvilrhtkmktatniyifnlaladtlvlltlpf 106
                                                                QSAKYLMETWPEGELLCKAVLSIDYYNMETSIETLTMMSVDRYIAVCHPVKALDERTPAK 164
                                                                                                                                                  SLALAIAITALYSAVCAVGLLGNVLVMFGIVRYTKLKTATNIYIFNLALADALATSTLPF
PILIITYCYGLMLLRLRSVRLLSGSKEKDRSLRRITRMVLVVVGAFVVCWAPIHIFVIVW
                           pvlvisvcyslmirrirgvrllsgsrekdrnlrritrlvlvvvavfvgcwtpvqvfvlaq
                                                                                           agavnvaiwalasvvgvpvaimgsaqvedeeieclveiptpqdywgpvfaiciflfsfiv
                                                                                                                                                                                                                                                               Similarity
180; Conse
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PS00237; G_PROTEIN_RECEPTOR N COUPLED RECEPTOR; TRANSMEMI YLATION; LIPOPROTEIN; PALMITY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRIMATES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NS (HUMAN)
                                                                                                                                                                                                                                                                                                                              323
123
334
21
28
28
39
                                                                                                                                                                                                                                                             53.6%;
Llarity 56.3%;
Conservative
                                                                                                                                                                                                                                                                                                                               A.
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                                                                                                                                                                                                                                                                                                                                 40693
                                                                                                                                                                                                                                                                                                                                 WW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TRANSMEMBRANE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      G.,
                                                                                                                                                                                                                                                               Score 1471; DB 7;
Pred. No. 1.63e-279;
66; Mismatches 72;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MAILLEUX P.,
G., MEUNIER
                                                                                                                                                                                                                                                                                                                                                                                             CYTOPLASMIC (BY SIMILARITY PALMITATE (POS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               EXTRACELLULAR (POTENTIAL) 5 (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CYTOPLASMIC
4 (POTENTIA)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              EXTRACELLULAR (POTENTIAL).
3 (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CYTOPLASMIC
2 (POTENTIA)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        VERTEBRATA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              EXTRACELLULAR (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 EXTRACELLULAR (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                 POTENTIAL
                                                                                                                                                                                                                                                                                                                                                                                  POTENTIAL.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (POTENTIAL)
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                                                                                                                                                                                                                                                                                                                                     BE3C3E8F CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         UPDATE)
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                                                                                                                                                                                                                                                                                                                                                                                                (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           c.;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          BUTOUR J.L., MOISAND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                  (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GLYCOPROTEIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             IS MEDIATED BY G PROTEINS
                                                                                                                                                                                                                                                                                                   Length 370;
                                                                                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MAMMALIA;
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TRESULT TO SUCCESS OF THE PROBLEM OF THE SULT TO SUCCESS OF THE PROBLEM OF THE PR
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                                                                                                                                                                                                                                                                                                                        MEDLINE; 94298955.

MEDLINE; 94298955.

WANG J.B., JOHNSON P.S., IMAI EPPLER C.M., UHL G.R.;
FPRS LETT. 348:75-79(1994).
WICK M.J., MINNERATH S.R., LIN X., ELDE R.P., LAW P.Y., LOH H.H.;
BRAIN RES. MOL. BRAIN RES. 27:37-44(1994).

-!- FUNCTION: OPIOD RECEPTOR WITH A POTENTIAL ROLE IN MODULATING A NUMBER OF BRAIN EUNCTIONS, INCLUDING INSTINCTIVE BEHAVIOURS AND EMOTIONS. THE ACTIVITY OF THIS RECEPTOR IS MEDIATED BY G PROTEINS WHICH INHIBITS ADENYLYL CYCLASE.

-!- TISSUE SPECIFICITY: HIGHLY EXPRESSED IN SEVERAL BRAIN AREAS.
-!- SUBCELULLAR LOCATION: INTEGRAL MEMBRANE PROTEIN.
-!- SIMILARITY: BELONGS TO FAMILY 1 OF G-PROTEIN COUPLED RECEPTORS.
EMBL; D16438; G533355; -.
                                                                                                                                                                                                                                                          STRAIN-SPRAGUE-DAWLEY; TISSUE-BRAIN; MEDLINE; 95182817.
                                                                                                                                                                                                                                                                                                        SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A.
MEDLINE; 94307400.
CHEN Y., FAN Y., LIU J., MESTI
FEBS LETT. 347:279-283(1994).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FEBS LETT.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FEBS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         OPRX_RAT
P35370;
01-JUN-1994
                                                                                                                                                                                                                                                                                                                                                                                                                                         TISSUE-BRAIN;
                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MEDLINE; 95096849.
LACHOWICZ J.E., SI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 STRAIN=SPRAGUE-DAWLEY; TISSUE-BRAIN; MEDLINE; 94307401.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TISSUE-BRAIN;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PUKUDA K., KATO S., MORI K., NISHI M., MIYATA T., HOUTANI T., SUGIMOTO T.; FEBS LETT. 343:42-46(1994).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                01-JUN-1994 (REL. 29, CREATED)
01-JUN-1994 (REL. 29, LAST SEQUENCE UPDATE)
01-FEB-1996 (REL. 33, LAST ANNOTATION UPDATE)
PROBABLE OPTOID RECEPTOR (ROR-C) (XOR1).
RATTUS NORVEGICUS (RAT).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MENG F., XIE
AKIL H.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TISSUE-HIPPOCAMPUS;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MEDLINE;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               345
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.R., SAEZ C.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            J.E., SHEW 1.,
HEM. 64:34-40(1995).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     94215703
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RODENTIA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             347:284-288(1994).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               G.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TISSUE-BRAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ALFRED M.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TO EMBL/GENBANK/DDBJ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MORTRUD M., BOUVIER
                                                                                                                                                                                                                                                                                                                                                                                          IMAI
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MESTEK A.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           364
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                                                                                                                                                                                                                                                                                                                                                                                     ۲.,
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                                                                                                                                                                                                                                                                                                                                                                                   PERSICO A.M.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TIAN M., KOZAK C.A.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SIBLEY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             367 AA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DATA BANKS
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R.,
                                                                                                                                                                                                                                                                                                                                                                                 OZENBERGER B.A.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     IWABE N.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MAMMALIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  J.T.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WATSON
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ₽.;
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Best Local :
                                                                                                                                                Matches
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EMBL; L28144; G496220;
EMBL; U787871; G606020;
EMBL; U39916; G557200;
EMBL; L29419; G510719;
                  183
                                    504
                                                     123
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DOMAIN
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DOMAIN
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PROSITE; PS00237; G_PROTEIN_RECEPTOR.

G-PROTEIN COUPLED RECEPTOR: TRANSMEME
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PIR;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DOMAIN
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                                                                                           63
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DOMAIN
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GCRDB; GCR_0834; -
GCRDB; GCR_0898; -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PHOSPHORYLATION; LIPOPROTEIN;
                                                                                                                              ω
otttgogcaacatettcaagaactgcacctactactggggcttcgcgcccgtggatggcct
                                                                                                     GGCCCTTTCATCTACCTGCTCTTCTACTTCCGAGTGCCCTTCATCTATGGCCACAAAAT 443
                                        actacatcaagcgcctgctggagacgctcttcgtgcaccgcttctcccatggcactatgc
                                                                 ATGACTTTACGTCCAGTCGGCATACAGTGGTGCACCTCGCCTGCATCTGTCACTCATTCC
                                                                             atgactttacgtccagtcggcatacagtggtgcacctcgcctgcatctgtcactcattcc 122
                                                                                                                 999cccttttcatctacctgctcttctacttccgagtgcccttcatctattggccanaaat 62
                           ACTACATCAAGCGCCTGCTGGAGACGCTCTTCGTGCACCGCTTCTCCCCATGGCACTATGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                $46238; $46238.
$43655; $43655.
                                                                                                                                              Similarity 98.2%;
330; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                     Seq F
                                                                                                                                                                                                                                                                                                                                                                                                               primer:
                                                                                                                                                                                              65
                                                                                                                                                                                                                                                                                                                                                                                          quality sequence stop: 262.
Location/Qualifiers
                                                                                                                                                                                                                                                                      /Clone_lib="Soares fetal heart NbHH19W"
/Sex="nnknown"
/Sex="nnknown"
/dev_stage="19 weeks"
/lab_host="DH10B (ampicillin resistant)"
<1...>338
<1...>38
115 c 67 g 89 t 2 other
                                                                                                                                                                                                                                                   /clone="376118"
                                                                                                                                                                                                                                                             NbHL19W.
                                                                                                                                                                                                                                                                                                                                                                       ∕organism="Homo sapiens"
                                                                                                                                                       28.7%;
                                                                                                                                                                                                                                                                                                                                                                                                             197 BY SIMILARMATIO -28M13 rev2 from Amersham
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                                                                                                                                              Score
Pred.
0; M
                                                                                                                                                                                                                                                                                                                                                                                                                           4 (POTENTIAL).

EXTRACELLULAR (POTENTIAL).

5 (POTENTIAL).

CYTOPLASMIC (POTENTIAL).

6 (POTENTIAL).

EXTRACELLULAR (POTENTIAL).

7 (POTENTIAL).

CYTOPLASMIC (POTENTIAL).

RY STATIA (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 EXTRACELLULAR , 3 (POTENTT-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TRANSMEMBRANE;
                                                                                                                                                                                                                                                                the fetal lung library,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CYTOPLASMIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CYTOPLASMIC
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1 (POTENTIAL)
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Homo sapiens (human)
Eukaryota; Animalia; Metazoa; Chordata; Vertebrata;
Firmis. Fiitheria; Primates; Haplorhini; Catarrhini;
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31-AUG-1996 (Rel. 49, Last updated, Version 1)
210-608 r.1 Soarces fetal heart NbHH19W Homo sapiens
376118 5' similar to PIR:S52504 S52504 homolog of r
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Hillier I., Clark N., Dubuque T., Elliston K., Hawkins M., Holman M., Hultman M., Kucaba T., Le M., Lennon G., Marra M., Parsons J., Rifkin L., Rohlfing T., Soares M., Tan F., Trevaskis E., Waterston R., Williamson A., Wohldmann P., Wilson "The WashU-Merck EST Project";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              glycoprotein SC2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Contact: Wilson RK WashU-Merck EST Project Washington University School of Medicine 4444 Forest Park Parkway, Box 85(1), St. Louis, Mo 63108 Tel: 314 286 1800 Fras: 314 286 1810 Email: est@watson.wustl.edu This clone is available royalty-free through LLNL; contact the IMAGE Consortium (info@image.llnl.gov) for further information. Seg primer: -28M13 rev2 from Amersham High
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                              COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS_MS-DOS
SOFTWARE: Patentin Release #1.0.
                                                                                                                                                                                   TITLE OF INVENTION: NON-A, NOTITLE OF INVENTION: CDNA AND NUMBER OF SEQUENCES: 50
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SOFTWARE: PatentIn Release #1.0, CURRENT APPLICATION DATA: 05/07/759,996
                                                                                                                                                                          CORRESPONDENCE ADDRESS
                                                                                                                                                                                                                                                                    APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                            R48780
                                                                                                                                      ADDRESSEE: Armstrong, Westerman, Hattori, ADDRESSEE: & Naughton STREET: 1725 K St. N.W. Suite 1000
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Sarcopterygii;
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MORI, Chisato
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Choanata;
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Tetrapoda; Amniota; Mammalia;
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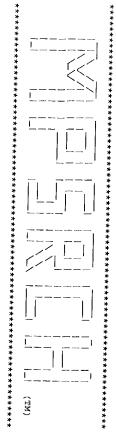
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TELEX: 440112
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
LENGTH: 2621 amino acidd
TYPE: amino acid
TYPE: amino acid
TOPOLOGY: linear
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FILING DATE: 31-AUG-1990
PRIOR APPLICATION NUMBER: JP 2-230921
FILING DATE: 31-AUG-1990
PRIOR APPLICATION DATA:
APPLICATION NUMBER: JP 2-305605
PRIOR APPLICATION NUMBER: JP 2-305605
PRIOR APPLICATION NUMBER: JP 2-305605
PRIOR APPLICATION NUMBER: JP 2-305605
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APPLICATION NUMBER: US 07/635.
FILING DATE: 28-DEC-1990
ATTORNEY/AGENT INFORMATION:
NAME: MCLeland, Le-Nhung
REGISTRATION NUMBER: 31,541
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HIDAHFLSQTKQAGDNFPYLVAYQATVCARAQAPPPSWDQMWKCLIRLKPTLHGPTPLLY
                 HIDAHFLSQTKQAGDNFPYLVAYQATVCARAQAPPDSWDQMWKCLIRLKPTLHGPTPLLY 1237
                                                                                                                           DEDSVIDCNTCVTQTVDESLDPTFTIETTTVPQDAVSRSQRRGRTGRGRRGIYREVTPGE
                                                    RPSGMEDSSVLCECYDAGCAWYELTPAETSVRLRAYLNTPGLPVCQDHLEFWESVETGLT
                                                                       RPSGMFDSSVLCECYDAGCAMYELTPAETSVRLRAYLNTPGLPVCQDHLEFWESVFTGLT
                                                                                                         DFDSVIDCNTCVTQTVDFSLDPTFTIETTTVPQDAVSRSQRRGRTGRGRRGIYREVTPGE
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HENCE 2621 AA; 285007 !
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TELEPHONE: (202) 659-2930
TELEFAX: (202) 887-0357
                                                                                                                                                                                                                                                                                                                                                                                                                                                         SKTLAAPKGFITQMYINVDQDLVGWPKPPGARSLTPCTCGSSDLYLVTRHADVIPVRRRG
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PRIOR APPLICATION DATA:
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Search completed: Fri Jul 18 08:24:56 1997 Job time : 22 secs.

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Release 2.1D John F. Collins, Biocomputing Research Unit. Copyright (c) 1993, 1994, 1995 University of Edinburgh, U.K. Distribution rights by Intelligenetics, Inc.

Run on: MPsrch_pp protein - protein database search, using Smith-Waterman algorithm

Tabular output not generated. Tue Aug 26 14:44:33 1997; MasPar time 10.17 seconds 418.288 Million cell updates/sec

Sequence: Description: Perfect Score: >US-08-292-694A-4 (1-372) from US08292694A.pep 2743

Scoring table: PAM 150 Gap 11 1 MELVPSARAELQSSPLVNLS.....TRERVTACTPSDGPGGGAAA 372

Searched: 96640 seqs, 11439865 residues

Post-processing: Minimum Match 0% Listing first 45 summaries

Database:

a-geneseq27
1:part1 2:part2 3:part3 4:part4 5:part5 6:part6 7:part7
8:part8 9:part9 10:part10 11:part11 12:part12 13:part13
14:part14 15:part15 16:part16 17:part17 18:part18
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Statistics: Mean 34.833; Variance 155.441; scale 0.224

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Score 2743; DB 13; Length 372; Pred. No. 3.05e-247; 0; Mismatches 0; Indels 0

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truncated or chimaeric opioid receptor can be used to produce complete, truncated or chimaeric opioid receptor proteins. The opioid receptors thus produced are useful for the development of novel assays designed to select or improve substances, capable of interacting with the opioid receptor proteins, for use in diagnosis, drug design and therapeutic applications. Sequence 372 AA;	incurse delta opicid receptor clone, lambda ms1-2, was subcloned into the CMV promoter based expression vector pCMV-fc. The resultant construct pCMV-ms1-2 was transfected into COS-1 cells for protein production. The	probe. The primers are based on the conserved sequences present in the second and third transmembrane domains of somatostatin (SRIF) receptor subtypes SSTR1, SSTR2 and SSTR3. The 1.3 kb EcoRI-SacI fragment from the	The corresponding gene was isolated from a mouse brain cDNA library using a fragment (amplified from the cDNA library with corresponding to the cDNA library using a fragment (amplified from the cDNA library with corresponding to the cDNA library using	Claim 5; Page 215-221; 300pp; English. The amino acid segmence of the page 1 mono dail.	polypeptides - for use in therapeutic compositions and in screening assays for useful drug substances	Polynucleotides and peptides derived from onicid recentor		Bell GI, Reisine T, Yasuda K:	05-NOV-1993; US-147592.	30-JUL-1993; US-100694.	20-MAY-1993; US-066296	08-DEC-1994. 20-MAY-1994: 1705747	W09428132-A.	Mus musculus.	transmembrane domain; somatostatin; receptor; human; expression vector:	Mouse; kappa; delta; mu: opioid receptor busing main and the mouse delta; mu:	17-AUG-1995 (first entry)	067670; R67670; standard; Protein; 372 AA. R67670;	

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WPI; 94-083099/10.
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      cpds. for opioid (ant)agonist activity
Clain 10; Fig 5; 74pp; English.
A cDNA library was constructed using mRNA isolated from the NG109-15
cell line. A single clone, named the DOR-1 clone was isolated.
Comparisons with known sequences in GenBank showed highest homology
between DOR-1 and the G-protein-coupled somatostatin receptor. Other
features of the DOR-1 clone AA sequence deduced from the CDNA
sequence include 3 consensus glycosylation sites at residues 18 and
33 (predicted to be in the extracellular N-terminal domain), and at
residue 310 (close to the C-terminus and predicted to be
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                                                                                                                       DNA encoding opioid receptors and antibodies against this receptor - used to express and locate these receptors, and screen
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(USSH) US SEC DEPT HEALTH.

JOHNSON PS, Persico AM, Uhl G, Wang J;

WPI; 95-275452/36.

New DNA encoding human mu opiate receptor - used esp. for screening opiate agonists or activity as opiate agonists or antagonists

Disclosure; Page 28-29; 49pp; English.

MOR CDNA was obtd. from a human cerebral cortical CDNA library screened with fragments of a rat mu opiate receptor. The encoded protein showed homology to rat mu, delta and kappa opiate receptors (R76781-83).

Sequence 372 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           03-AUG-1995.
30-JAN-1995; U01144.
28-JAN-1994; US-188275
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                                                    MELVPSARAELQSSPLVNLSDAFPSAFPSAGANASGSPGARSASSLALAIAITALYSAVC
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                                                                                                                                                       Conservative
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Pred. No. 3.
                                                                                                                                                          Score 2650; DB 14;
Pred. No. 2.72e-238;
5; Mismatches 7;
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.05e-247;
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10-NOV-1992; 013526.
10-NOV-1992; FR-013526.
(UYST-) UNIV PASTEUR STF
                                                                                                                                                                                                                                                                              Claim 8; Page 19-20; 29pp; French.

A cDNA bank constructed from hybridoma NG108-15, was used to transfect COS-1 cells. The cells were tested for ability to bind tritium-labelled Tyr-D-Thr-Gly-Phe-Leu-Thr, in the presence or absence of the opioid antagonist naloxone. Clone K56 was isolated from a positive colony and found to contain a 2216bp insert. This cDNA encodes a delta opioid (enkephalin) receptor with apparent dissociation constant 1.4nM and Bmax 3.9-6.4 pmole/mg protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     19-JAN-1995 (first entry)
Murine delta opioid receptor.
delta opioid; enkephalin; receptor; mouse; murine; analgesic;
drug addiction; neurological disorder; psychiatric; disorder;
                                                                                                                                                                                                                                                                                                                                                                                                       New nucleic acid encoding opioid receptor - and related polypeptide, antisense nucleic acid, probes, recombinant cells and ligands, useful in diagnosis and treatment of e.g. neurological disorders
                       181
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355; Conser
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                                                                                                                                                                                                                   91.8%;
ilarity 95.2%;
Conservative
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                                                                                                                                                                                                                 Score
Pred.
0; M
                                                                                                                                                                                                                re 2519; DB 10;
d. No. 1.08e-225;
Mismatches 15;
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No. 1.
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      New DNA encoding human mu opiate receptor - used esp. for screenic cods. for activity as opiate agonists or antagonists claim 1; page 25-26; 49pp; English.

hMOR cDNA was obtd. from a human cerebral cortical cDNA library screened with fragments of a rat mu opiate receptor. Expression of hMORI in COS cells revealed high affinity recohnition of the nopiate specific ligand. Recombinant hMORI can be used to screen compounds for analgesic activity.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Modified_site 32 | /label= Glycosylation /note= "N-linked glycos Modified_site 40 | /label= Glycosylation | /label= Glycosylat
                                                                                                                                                                                                                                                                               Johnson PS, Persico AM, WPI; 95-275452/36.
N-PSDB; Q93102.
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/label= Transmembrane_domain
736..256
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03-AUG-1995.
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Domain 322..3
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/label= Glycosylation
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/label= Glycosylation
/note= "N-linked glyco
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R71966 standard;
R71966;
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Claim 4; Page 211-214; 265pp; English.

A cDNA library constructed from human caudate nucleus mRNA was screened with rat mu opioid receptor cDNA under conditions of low stringency. One positive clone included the sequence given 208225, encoding a mu opioid receptor MOR (R71964). The cDNA is used for prodm. of recombinant MOR, in gene therapy, etc. sequence 400 AA;
                                                                                                                                                                                                                                                                                                                                                                                                 WPI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           20-OCT-1995 (first entry)
Human mu opioid receptor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                  23-MAR-1995.
13-SEP-1994;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Mu opioid receptor; MOR; gene therapy;
                                                                                                                                                                                                                                                                                                                                                          New nucleic acid encoding new human mu opioid receptor related vectors, transformed cells, antibodies etc., us
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CMLQFPSPSWYWDTVTKICVFLFAFVVPILIITVCYGLMLLRLRSVRLLSGSKEKDRSLR
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               TLTMMSVDRYIAVCHPVKALDFRTPAKAKLINICIWVLASGVGVPIMVMAVTQPRDGAVV
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220; Conser
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58; ]
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Pred. No. 1.55e-149;
57; Mismatches 62;
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Mismatches 61;
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23-MAR-1995.
13-SEP-1994; U10358.
13-SEP-1993; US-120601.
TWINTANA FOUND.
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New nucleic acid encoding new human mu opioid receptor - and related vectors, transformed cells, antibodies etc., useful in diagnosis, treatment and drug screening.

Disclosure; Page 190-194; 266pp; English.

A 365 bp fragment of the mouse delta opioid receptor was used to screen a rat brain cDNA library under low stringency conditions. Screen a rat brain cDNA library under low stringency conditions one positive clone included the sequence given in Q89222, encoding mu opioid receptor, MOR-1 (R71964). MOR-1 was stably expressed in transfected CHO cells.
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R71964;
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WPI;
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                       19-APR-1995 (first entry)
Murine mu-subtype opioid rec
Mu-subtype opioid receptor;
Rattus rattus.
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55; Mismatches 54;
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88 is the rat mu-subtype opioid receptor protein purified rat brain membranes, with biotinyl-b-endorphin (R56666) ts ligand. It is encoded by the nucleotide sequence Q79199 h was synthesised using Q71022 and Q71023 as PCR primers.

88 is useful for identifying othe receptor subtypes, for ening new opioid ligands, and for studying mechanisms of
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Best Local
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                                                                                                               14-MAR-1995.
30-JULI-1993; 190261.
09-JULI-1993; JP-170591.
(TAKE) TAKEDA CHEM IND I
WPI; 95-144857/19.
                            properties
Claim 2; Pa
                                                                                                                                                                                                                                                                                                  Mammalian kappa opioid receptor protein.
Mammalian kappa opioid receptor; mouse damplification; primer; rat; prohe. Tattus rattus.
                                                                                                                                                                                                             /*tag= a
/product= kap
J07070191-A.
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R72591;
01-DEC-1995
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28-JAN-1994; US-188275.
(USSH) US DEPT HEALTH & HUM
(USSH) US SEC DEPT HEALTH.
Johnson PS, Persico AM, Ub
WPI; 95-275452/36.
                                                                 Kappa opioid for the scree
                                                                                                    N-PSDB; Q86725
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W09520667-A1.
03-AUG-1995.
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MAGR CDNA was obtd. from a human cerebral cortical content with fragments of a rat mu opiate receptor. Protein showed homology to rat mu, delta and kappa of Sequence 398 AA;
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Pred. No. 3.73e-149;
56; Mismatches 54;
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r analgesic and hypnotic
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         peptides and proteins.
Sequence 380 AA;
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hMOR cDNA was obtd. from a human cerebral cortical of screened with fragments of a rat mu opiate receptor protein showed homology to rat mu, delta and kappa of
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28-JAN-1994;
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95-275452/36.
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opiate receptor; mu optiate receptor;
e antagonist; drug abuse; analgesic.
  ALAIAITALYSAVCAVGLLGNYLVMFGIVRYTKLKTATNIYIFNLALADALATSTLPFQS 106
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) US DEPT HEALTH & HUMAN SERVICES.
US SEC DEPT HEALTH.
PS. Persico ***
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51; Mismatches 45;
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                                                                                                                                                                                                                                                        Claim 7; Page 13-15; 30pp; French.

CC The sequence coding for the human Kappa opioid receptor was CC obtained from two overlapping cDNA fragments isolated from a CC human placental cDNA library. The fragments were amplified from CC quenomic clones which hybridised with a murine delta receptor cDNA CC probe. Nucleotide probes derived from the kappa opioid receptor CC coding sequence are useful for diagnosis of neurological, cardio-CC vascular and psychiatric disorders associated with opioid CC receptors. The receptor can be used for identifying e.g. agonists of its activity for potential use as analgesics.
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                                                                                                                                                                                                                Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        25-JAN-1996.
07-JUL-1995; F00912.
11-JUL-1994; FR-008531.
(UYST-) UNIV PASTEUR STF
Kieffer B, Simonin F;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WPI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Homo sapiens. W09601898-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Human kappa opioid receptor. Human; kappa opioid receptor;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   neurology;
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                                                                                                                                mktatniyifnlaladalvtttmpfqstvylmnswpfgdvlckivisidyynmftsiftl 149
                                                                                                                                                           FPS-AFP-SAGANASGSPGARSAS-SLALAIAITALYSAVCAVGLLGNVLVMFGIVRYTK
                                                                                                                                                                                 fpgwaepdsngsagsedaglepahispaipviitavysvvfvvglvgnslvmfviirytk 89
  CMLQFPSPSW-YWDTVTKICVFLFAFVVPILIITVCYGLMLLRLRSVRLLSGSKEKDRSL
                    cslqfpdddyswwdlfmkicvfifafvipvliiivcytlmilrlksvrllsgsrekdrnl
                                                      TMMSVDRYIAVCHPVKALDFRTPAKAKLINICIWVLASGVGVPIMVMAVTQPRDGA-VV-
                                                                     LKTATNIYIFNLALADALATSTLPFQSAKYLMETWPFGELLCKAYLSIDYYNMFTSIFTL
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Similarity 63.6%;
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                                                                                                                                                                                                                  Score 1604; DB 17;
Pred. No. 5.63e-138;
56; Mismatches 59;
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                                                                                                                                                                                                                                                                                                                                                                                                                                       human Kappa opioid receptor - useful for isolating receptor ligands and
                                                                                                                                                                                                                                          Length
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EX Claim 8; Page 207-211; 300pp; English.

CC The amino acid sequence of the novel mouse kappa opioid receptor morkl.

CC The amino acid sequence of the novel mouse brain cDNA library using the corresponding gene was isolated from a mouse brain cDNA library using a fragment (amplified from the cDNA library with primers 075929-30) as a composition of the compo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          멁
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08-DEC-1994.
20-MAY-1994; U05747.
20-MAY-1993; US-066296.
30-JUL-1993; US-100694.
05-NOV-1993; US-147592.
(ARCH-) ARCH DEV CORP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                applications.
Sequence 38
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        truncate; chimaeric;
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                                           VWTLVDINRRDPLVVAALHLCIALGYANSSLNPVLYAFLDENFKRCFRQLCRTPCGRQEP
                                                                                                     INICIWVLASGVGVPIMVMAVTQPRDGA-VV-CMLQFPSP--
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                                                                                                                                                                                               VPILITYCYGLMLLRLRSVRLLSGSKEKDRSLRRTTRMVLVVVGAFVVCWAPIHIFVI
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66.7%;
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Pred. No. 2.62e-137;
51; Mismatches 46;
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Best Local :
                                                                                                                                                                                                                                                                                                 TLT 15
R67671 standard; 1
R67671;
17-AUG-1995 (fir:
                                                                                                                                                            Mouse opioid receptor-like receptor MOP2 protein.
Mouse; kappa; delta; mu; opioid receptor; brain; primer; PCR;
transmembrane domain; somatostatin; receptor; human; expression
                                                              Mus musculus. W09428132-A.
                                                                                                                                             truncate; chimaeric;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   diagnosis, treatment and drug screening.

Example 9; Page 218-222: 265pp; English.

The cDNA given in Q89233 was isolated from a rat brain library low stringency hybridization with rat mu opioid receptor cDNA (Q89222). The clone encoded a 367-amino acid protein (R71968) that showed high homology with mu, kappa and delta opioid receptor tacked affinity for their ligands, suggesting it to be a novel member of the opioid receptor family.

Sequence 367 AA;
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Mismatches

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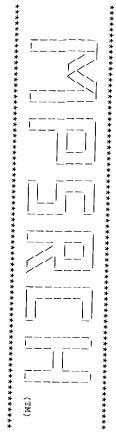
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pr polypuclectides and peptides derived from opioid receptor prolypuclectides and peptides derived from opioid receptor prolypeptides for use in therapeutic compositions and in prolypeptides for useful drug substances.

Proceeding 27: Page 225-229; 300pp; English.

CC The amino acid sequence of the novel mouse opioid receptor-like receptor the amino acid sequence of the novel mouse opioid receptor which cc are dissimilar to the propeties of classic opioid receptors such kappa, cc are dissimilar to the propeties of classic opioid receptors such kappa, cc are dissimilar to the propeties of classic opioid receptor. This suggests of that this receptor could be important in the development of drugs to treat addiction. Other opioid receptors isolated and produced such as the covel mouse kappa and delta opioid receptors (075926-7) are useful for the development of novel assays designed to select or improve substances, capable of interacting with the opioid receptor proteins, for use in cc diagnosis, drug design and therapeutic applications.
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05-NOV-1993; US-147592.
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Bell GI, Reisine T, Yasuda K;
WPI; 95-022804/03.
N-PSDB; 075928.
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 345 LRRPROATTRERVTACTPSD
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                                                                                          gl-gvqpgsetavailrfctalgyvnsclnpilyafldenfkacfrkfccasalhremqv 342
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                               sdrvr-siakdvglgcktse 361
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Pred. No. 3.07e-124;
67; Mismatches 71;
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Search completed: Tue Aug 26 14:44:55 1997 Job time : 22 secs.



Release 2.1D John F. Collins, Biocomputing Research Unit.
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Run on: MPsrch_pp protein - protein database search, using Smith-Waterman algorithm

Tabular output not generated. Fri Jul 18 08:10:10 1997; MasPar time 23.58 Seconds 291.549 Million cell updates/sec

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Searched: PAM 150 Gap 11

Scoring table:

92623 segs, 10896596 residues

Post-processing: Minimum Match 0% Listing first 45 summaries

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Statistics: Mean 36.461; Variance 150.473; scale 0.242

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

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Disclosure; Fig 2; 89pp; English.

The sequence (SEQ ID NO 1) was deduced from several overlapping "BK" cDNA clones obtd. by "gene walking" using a cDNA clone isolated from a library prepd. from NANBV RNA. Antigenic polypeptides from the sequence can be used as immunoassay reagents, for screening donated blood, and as immunogens for vaccine prodn. Antibodies raised to the peptides can be used in immunoassays to detect or quantify NANBV antigens in liver tissue and blood. Preferred polypeptides include residues 1-30, -115, or 2012; 47-77; 116-191; 192-207 or -298; 230-238 or -263; 287-300; 293-330; 390-729; 730-1005; 1006-1614; 1384-1414; 1615-1862; 1737-1767; 1863-2012; and
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Disclosure; Fig 2; 89

The sequence (SEQ ID

"BK" cDNA clones obto
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l Similarity 100.0%;
631; Conservative
 non-B viral genome product.
vaccine; immunodiagnosis; antigen;
non-B hepatitis virus.
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Pred. No. 0.00e+00;
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Claim 4; Claim 4; Claim 4; Claim 5; Claim 6; Claim 
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Best Local
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EP-464287-A.
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Non-A, non-B hepatitis virus (NANBV)
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25-JUN-1990; JP-167466.
31-AUG-1990; JP-230921.
09-NOV-1990; JP-305605.
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Pred. No. 0.00e+00;
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NANBV from
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PR WPI: 95-311381/40.

PRI In vitro reproduction of hepatitis C virus NS3 protease acceptable NS4A cofactor in the mixt., useful for screening propers. that inhibit NS3

PS Claim 6; Page 16-18; 26pp; English.

CC This sequence represents the Hepatitis C virus (HCV) NS3 serine protease comain requires NS4A (see R83855) as a cofactor. Optimal serine protease activity is obtained when NS4A and NS3 are present in a 1:1 ratio. The cleavage site between these two proteins con the HCV genome can be mutated so that the components remain covalently in an assay system. This assay system can be used to select compounds be used for screening enzyme inhibitors.

Sequence 631 AA;
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14-FEB-1995; IT0018.

23-FEB-1994; IT-RM0092.

(RICE-) IST RICERCHE BIOL MOLECOLARE

(RICE-) IST RICERCHE BIOL MOLECOLARE
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Hepatitis C virus.
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R82854 standard;
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                                                                     Example 1; Page 43-53; 99pp; English.

The NS4 region from the 3' region of the PT-NANBH genome (Q46195) is amplified by PCR using primers D224 and D226 (Q46196-97) and the fragment (Q46198) is cloned into a vector and expressed in infected insect cells. The recombinant virus (BHC-19) was able to express the NS4 specific recombinant protein at low levels in the infected insect cells.

If at least three different PT-NANBH antigens are used to screen for PT-NANBH, the screening is much more sensitive as compared to
                                                                                                                                                                                                                                                                                                                                                                                                                                                  (WELL ) WELLCOME FOUND Parker D, Rodgers WPT.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               R41435 stand
R41435;
24-FEB-1994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PT-NANBH virus non-structural proteins.

Parenterally transmitted non A non B hepatitis; PT-NP hepatitis; C virus; HCV; detection; diagnosis; antiger amplification; primer; polymerase chain reaction; PCP Parenterally transmitted non A non B hepatitis virus.
                                                                  for PT-NANBH,
the use of on
                                                                                                                                                                                                                                                                                                                                                 New recombinant polypeptide for diagnosing hepatitis C three distinct antigens from different viral regions, \boldsymbol{\epsilon}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PT-NANBH virus non-structural parenterally transmitted non A hepatitis C virus; HCV; detecti
                                                                                                                                                                                                                                                                                                                                                                                                                   N-PSDB; Q46195
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21-FEB-1992;
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02-SEP-1993.
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of only two PT-NANBH antigens. Pref. antigens are ed in Q46192-94. Two new antigenic regions of the genome are given in Q46198-99. Q46202 describes
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Best Local
                                                                                                                                                                                                                         R54099;
R54099;
R540995 (first entry)
NANBHV E1/E2 protein.
Non-B, non-B hepatitits virus; NANBHV;
E1/E2 protein; non-A, non-B hepatitits virus; insect cell; antig
antibody; hepatitis C virus; HCV; vaccine.
Non-A, non-B hepatitis virus.
Non-A, non-B hepatitis virus.
/note= "Peptide fragment not given in the sp
but encoded by the given cDNA sequence"
Peptide 1296..1311
/note= "Peptide fragment not given in the sp
but encoded by the given cDNA sequence"
Peptide 1760..1775
/note= "Peptide fragment not given in the sp
but encoded by the given cDNA sequence"
Peptide 2688..2703
/note= "Peptide fragment not given in the sp
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| Similarity 96.4%;
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This sequence represents the EL/E2 protein from non-A, non-B hepatitit virus (NANBHY). The cDNA encoding this sequence may be linked to a signal peptide (r54100) from a heterogenic virus so the the NANBHY protein may be expressed by a transformed insect cell. This protein may be used as an antigen in the generation of anti-NANBHY antibodies. These antibodies may be used in a hepatitis C vaccine.
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13-MAR-1992; JP-089371.
(KAGA ) ZH KAGAKU & KESSEI
WPI; 94-205030/25.
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Pred. No. 0.00e+00;
11; Mismatches 8;
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RESULT 6
ID R52007 standard; Protein;
AC R35207,
DT 29-JUL-1993 (first entry)
DE Hepatitis C virus protein.

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RNA was extracted from the plasma of Japanese patients whose HBs antigen was negative and with a GPT over 100. cDNA was synthesised from the RNA and cloned into lambda gtll and screened using HCV infected chimpanzee plasma to isolate HCV clones. The DNA sequence is useful in detection of HCV virus. The polypeptide it produces may be used as an antigen in the prepn. of HCV vaccine.
                                                                                                                                                                                                                                                                                                 1387
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Claim 2; Page 6-17;
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(KAGA ) KAGAKU OYOBI KI
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pan, and as v
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Best Local
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05-FEB-1993; 018854.

07-FEB-1992; JP-022657.

18-SEP-1992; JP-249240.

04-DEC-1992; JP-325303.

(KAEN/) KAENNO K.

(SOYA-) SOYAKU GIJUTSU K.

(SUYA-) SOYAKU K.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          An HCV proteinase active substance - which has activity as an anti-HCV agent and can be used to screen for proteinase inhibitors Claim 3; Page 24-27; 52pp; Japanese.

The present sequence is that of a partial proteinase isolated from Hepatitis C virus (HCV). The proteinase can be used as an anti-HCV agent. It can also be used to screen cpds. for their ability to inhibit its proteolytic activity. In this way proteinase inhibitors
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   can be id
Sequence
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HCV partial
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ibit its proteolytic
be identified.
                            rlgavqneitlthpitkfvmacmsadlevvt
RLGAVQNEVTLTHPITKYIMACMSADLEVVT
                                                                                  HIDAHFLSQTKQAGDNFPYLVAYQATVCARAQAPPPSWDQMWKCLIRLKPTLHGPTPLLY
                                                                                                            hidahflsqtkqagdnfpylvayqatvcaraqapppswdqmwkclir1kptlhgptplly
                                                                                                                                                                         RPSGMFDSSVLCECYDAGCAWYELTPAETSVRLRAYLNTPGLPVCQDHLEFWESVFTGLT
                                                                                                                                                                                                   rpsgmfdssvlcecydagcawyeltpaettvrlraylntpglpvcqdhlefwesvftglt
                                                                                                                                                                                                                                                                          DEDSVIDCNTCVTQTVDFSLDPTFTIET
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                         lgigtvldqaetagarlvvlatatppgsitvphpnieevalsntgeipfygkaipieaik
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95.7%;
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Matches 60
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/70718/648-A.

25-7UL-1995.

05-FEB-1993; 018854.

07-FEB-1992; JP-02657.

07-FEB-1992; JP-249240.

04-DEC-1992; JP-325303.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Partial HCV non-structural polyprotein. proteinase; hepatitis C virus; screening; identification; cleavage. Hepatitis C Virus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (XAEN/)
(SOYA-)
(SUMQ)
WPI; 95-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           An HCV proteinase active substance - which has activity as an anti-HCV agent and can be used to screen for proteinase inhibitors Disclosure; Page 39-48; 52pp; Japanese.

The present sequence is a partial Hepatitis C Virus (HCV) polyprotein from the non-structral region. Partial proteinase sequences (R82692-93) are contained within this sequence. The proteinases can be used as anti-HCV agents. They can also be used to screen cpds. for their ability to initial their proteolytic activity. In this way proteinase inhibitors
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Protein
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YA-) SOYAKU GIJUTSU K
MQ ) SUMITOMO METAL 1
; 95-287962/38.
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                                                                                                                                                                                                                                                                      DSRGSLLSPRPVSYLKGSSGGPLLCPFGHAVGIFRAAVCTRGVAKAVDFVPVESMETTMR
                                                                                                                                                                                                                                                                                    dsrgsllsprpisylkgssggpllcpsghvvgifraavctrgvakavdfipvesmettmr
                                                                                                                                                                                                                                                                                                                        SKTLAAPKGPITQMYTNVDQDLVGWPKPPGARSLTPCTCGSSDLYLVTRHADVIPVRRRG
               dfdsvidcntcvtqtvdfs1dptftietttlpqdavsraqrrgrtgrgrsgiyrfvtpge
                                                      GGRHLIFCHSKKKCDELAAKLSGLGINAVAYYRGLDVSVIPTIGDVVVVATDALMTGYTG
                                                                     ggrhlifchskkkodelaakltglglnavayyrgldvsviptsgdvvvvatdalmtgftg
                                                                                                                      YMSKAHGIDPNIRTGYRTITTGAPYTYSTYGXFLADGGCSGGAYDIIICDECHSTDSTTI
                                                                                                                                                                                                                  SPYFTDNSSPPAVPQSFQVAHLHAPTGSGKSTKVPAAYAAQGYKVLVLNPSVAATLGFGA
 DEDSVIDCNTCVTQTVDFSLDPTFTIETTTVPQDAVSRSQRRGRTGRGRRGIYRFVTPGE
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ce 3010 AA;
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                                                                                                                                                                                                                                                                                                                                                                                                                               ne 4389; DB
1. No. 0.00e+
Mismatches
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22-NOV-1994.

18-SEP-1992; Z49241.

18-SEP-1992; JP-249241.

(SOYA-) SOYAKU GIJUTSU KENKYUSHOWPI; 95-040330/06.

N-PSDB, 081559.

Expression of hepatitis C virus useful for large scale prodn. o
                                                                                                                                                                                                                                                                                                                                                                                        Region
/label=
                                                                                                                                                                                                                                                                                                                                                                                                                                                 Hepatitis C virus RNA helicase Hepatitis C virus; HCV; non-A non-B; baculovirus; recombinant production. Hepatitis C virus.
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/label=
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06-DEC-1995
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430..432
ed glycosylation:
448..450
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2788..2790
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1255..1257
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Best Loc
Matches
 /note= "Serine protease (
J06315377-A.
15-NOV-1994.
06-MAY-1993; JD-105666.
06-MAY-1993; JD-105666.
(XAEN/) KAENNOK (SOYA-) SOYAKU GIJUTSU KI
                                                                    Cleavage_site
/note= "Serine
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R68622;
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Q81559 encodes R68864 hepatitis C virus (HCV) RNA helicase DNA was used in the construction of an expression vector, was used to transform a baculovirus host. The transformed
                                                                                                      proteinase;
Hepatitis C
                                                                                                                              HCV
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protein cleavable with new serine
teinase; serine; cleavage; hepatiti
atitis C Virus.
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605; Conser
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larity 95.9%;
Conservative
K.
GIJUTSU KENKYUSHO
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hepatitis C virus:
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RESULT REAC REDT 1/2 AC REDT 1/2 LC HC KW PI KW FI COS HE PN J-1

R82696 standard; Protein; 923 AA R82696; 14-NOV-1996 (first entry) HCV partial proteinase. proteinase; hepatitis C virus; sidentification; cleavage.

screening;

Hepatitis C Virus J07184648-A.

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WPI; 95-032330/05.
N-PSDB; Q80498.
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Sequence
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                                                                        hidahflsqtkqagdnlpylvayqatvcaraqapppswdqmwkclirlkptlhgptplly
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                                                                                                                                                                                            dfdsvidentevtgtvdfsldptftietttlpgdavsragrrgrtgrgrsgiyrfvtpge
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95.9%;
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Pred. No. 0.1
19; Mismatch
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.00e+00;
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purified as a fused
by using a methotrexate
inhibitor for HCV
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05-FEB-1993; 018854.
07-FEB-1992; JP-022657.
18-SEP-1992; JP-249240.
04-DEC-1992; JP-325303.
(KAEN/) KAENNO K.
(SOYA-) SOYAKU GIJUTSU KENKYUSHO KK.
(SUMQ) SUMITOMO METAL IND LITD.
WPI: 95-287962/38.
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N-PSDB; 703995.

An HCV proteinase active substance - which has activity as an anti-HCV agent and can be used to screen for proteinase inhibitors Example 2; Page 33-39; 52pp; Japanese.

The present sequence (contg. R8593) is that of a partial proteinase isolated from Hepatitis C virus (HCV). The proteinase can be used as an anti-HCV agent. It can also be used to screen cpds. for their ability to inhibit its proteolytic activity. In this way proteinase inhibitors can be identified.

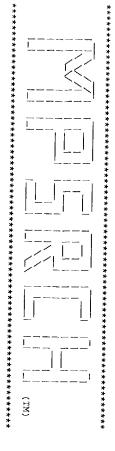
Sequence 923 AA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SKTLAAPKGPITQMYINVDQDLVGWPKPPGARSLTPCTCGSSDLYLVTRHADVIPVRRRG
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               rlgavqneitlthpitkfvmacmsadlevvt 668
                                                                  hidahflsqtkqagdnfpylvayqatvcaraqapppswdqmwkclirlkptlhgptplly 637
                                                                                                                                                                            lgigtvldqaetagarlvvlatatppgsitvphpnieevalsntgeipfygkaipieaik
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                                                   HIDAHELSQTKQAGDNFPYLVAYQATVCARAQAPPPSWDQMWKCLIRLKPTLHGPTPLLY
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                                                                                                                                                                                                                                                                    LGIGTVLDQAETAGARLVVLATATPPGSVTVPHPNIEEVALSNTGEIPFYGKAIPIEAIR
RLGAVQNEVILTHPITKYIMACMSADLEVVT
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l similarity 95.2%;
601; Conservative
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Pred. No. 0.00e+00;
23; Mismatches 7;
    631
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RESULT
ID RI
AC RI
DT 1'

IT 12 83417; standard; Protein; 3010 R53417; 17-JAN-1995 (first entry)

DΕ



Release 2.1D John F. Collins, Biocomputing Research Unit. Copyright (c) 1993, 1994, 1995 University of Edinburgh, U. Distribution rights by Intelligenetics, Inc.

Run on: MPsrch_nn n.a. n.a. database search, using Smith-Waterman algorithm Tue Aug 26 09:12:13 1997; MasPar time 2128.91 Seconds 1172.094 Million cell updates/sec

Description:
Perfect Score:
N.A. Sequence:
Comp: Title: >US-08-292-694A-3 (1-2272) from US08292694A.seq 2272

Tabular output not generated.

1 CACGCGGCGCCATGGAGCTG.......CTTTCCAACAACTGTGGGCA 2272 GTGCGCCGCGGTACCTCCAC......GAAAGGTTGTTGACACCCGT

Scoring table: TABLE default Gap 6

Nmatch

STD

Dbase 0;

Query 0

362067 seqs, 549138275 bases x

Post-processing: Minimum Match 0% Listing first 45 summaries

Database:

1:BCT 2:FUN 3:GEN1 4:GEN2 5:HTG1 6:HTG2 7:HUM 8:INV 9:ORG 10:MAM 11:VRT 12:PLN 13:PRO 14:ROD 15:SYN 16:UNC 17:VIR

18:BCT1 19:BCT2 20:BCT3 21:BCT4 22:BCT5 23:BCT6 24:BCT7 25:BCT8 26:BCT9 27:BCT10 28:BCT11 29:GEN1 30:GEN2 31:GEN3 32:HTG1 33:HTG2 34:HTG3 35:INV1 36:INV2 37:INV3 38:INV4 39:INV5 40:INV6 41:INV7 42:INV8 43:INV9 44:INV10 45:INV1 45:INV1 47:MAM2 48:MAM3 49:VRT1 50:VRT2 51:VRT3 52:VRT4 53:PAT1 54:PAT2 55:PAT3 56:PAT4 57:PAT5 58:PHG 59:PAM1 60:PALN 68:PAM3 62:PAM4 63:PAM5 64:PAM6 65:PAM7 70:PAT3 70:P

Database:

genbank-new3
106:BCT 107:GEN1 108:GEN2 109:HTG1 110:HTG2 111:INV
112:MAM 113:VRT 114:PHG 115:PLN 116:PRI1 117:PRI2
118:ROD 119:SYN 120:UNA 121:VRL
u-emb150_99
122:part1

Database:

Statistics: Mean 12.005; Variance 5.716; scale 2.100

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

54444000000000000000000000000000000000	514321	Result No.
1111 1111 1111 1111 1111 1111 1111 1111 1111	77002	iğ
11111111111111111111111111111111111111		nery
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99999988999777848878481119899117777777777		DB
U00475 U00475 U00475 U0071149 U071149	MUSDELOPRE S66181 MUSDELTO S65335 MUSDOPRCP	
orvegicus for rat lta opiat for at lta opiat fia delta fia clan fia (clan fi	elta opioid r piate recepto culus delta-o pioid recepto	escripti
0.00e+00 0.00e+00 0.00e+00 0.00e+00 0.00e+00 0.00e+00 0.00e+00 0.00e+00 1.06e-282 5.32e-282 5.32e-282 5.32e-275 2.73e-277 2.73e-277 2.73e-277 2.73e-277 2.73e-273 3.58e-273 3.58e-273 3.58e-273 3.58e-273 3.22e-243 3.22e-243 3.22e-243 3.22e-243 3.22e-243 3.22e-243 3.22e-243 3.22e-243 3.22e-243 5.22e-225 6.90e-217 1.65e-21		Pred. No.

ALIGNMENTS

	source	FEATURES	MEDLINE	JOURNAL		TITLE		AUTHORS	REFERENCE				ORGANISM	SOURCE	KEYWORDS	NID	ACCESSION	DEFINITION	LOCUS	RESULT 1
/organism="Mus musculus"	12272	Location/Qualifiers	93342064	Proc. Natl. Acad. Sci. U.S.A. 90, 6736-6740 (1993)	receptors from mouse brain	Cloning and functional comparison of kappa and delta opioid	and Bell, G.I.	Yasuda, K., Raynor, K., Kong, H., Breder, C.D., Takeda, J., Reisine.	1 (bases 1 to 2272)	Murinae; Mus.	Vertebrata; Eutheria; Rodentia; Sciurognathi; Myomorpha; Muridae:	Eukaryotae; mitochondrial eukaryotes; Metazoa; Chordata;	Mus musculus	Mus musculus (library: Clontech #ML1036a) brain cDNA to mRNA.	delta opioid receptor.	g348246	L11064	eceptor mRNA, complete cds.	MUSDELOPRE 2272 bp mrnA ROD 13-DEC-1993	

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                                                                                 TGTTCCTCTTTGCCTTCGTGGTGCCGATCCTCATCATCACGGTGTGCTATGGCCTCATGC
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/db_xref="pip:g348247"
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TPAKVELLIITVCYGLMLLRIRSVRLLSGSKEKDRSLRRITRMVLVVVGAFVCWAP
HHIFVIVWTLVDINRAPDLVVAALHLCIALGFANSSLMPVLYAFLDENFKRCFRQLCR
TPCGRQDPGSLRRPRQATTRERVTACTPSDGPGGGAAA"

665 c 650 g 472 t
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/tissue_lib="Clontech
12..1130
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Pred. No. 0.00e+00;
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aaacct 1920 	agggtgtttgtgtgaggctctgggatcaataagacaaacaa	1861	Db
Gree	GTAAAGAGGGCTGGGAATGTAGCTC	1801	Qγ
agtggt 1860	tgggcaatttagtgtctcaaaataaaatgtaaagagggctg	1801	ф
lacage 1800 	gcaggctgtgtaatoccagtcatagtggaggctgaggctggaaaattaaggacca 	1741 1741	Db Qy
ATGG	GATACAAGCCGGGCCTG	1681	QY
yatggg 1740	cgttgaggctagggcaacgtgacttctctgtagagagatacaagccgggcctg	1681	뫄
TAAA	GATGGTCAACGTTGGAGAAGAGTCAAAGTTCTCACCACCTTCTAACTACTCAGC	1621	Qy
taa 	atggtcaacgttggagaagagtcaaagttctcaccacctttctaactactcagc	1621	da
TGGG	TGGGGTTTGGTCAGGAGATAAGCGCCCCCTTCCCTTGGGGGGAAGATAAG	1561	VQ
rtgggg 1620	agcttggggtttggtcaggagataagcgccccttccctt	1561	Db
CAAG	ATGGGGAGGATCTCTCATCTTAGAGAAGATAAGGGGACAGGGCATTCAGG	1501	ΟУ
Caa	tgttatggggaggatototoatottagagaagataaggggacagggcattcagg	1501	₽b
CATT	CCAGCTCCAGGAACCAGGAGGGGTCGATGATTTGGTTTGGCTGAGAGTCCCAG	1441	Qy
– a	tccagctccaggaaccaggaggggtcgattgatttggtttggctgagagtcccag	1441	Db
AAGG	AACATCGGGTTCTGGCCAAAAAGAACACCAGCTCCAGTCCAAGACCC	1381	Qy
aagga 1440	ttgagataacatcgggttctggccaaaaagaacaccagctccagtccaagaccc	1381	Db
TCCGC 1380	GCTGGTGATTCCTAAACTGTATCCATTAGTAAGGCCTCTCCAATGGGACAGAGCC	ω	Qy
teeg	ctggtgattcctaaactgtatccattagtaaggcctctccaatgggacagagcc	1321	D D
GCAGA 1320	GGAACGGTGGGGGTGAGGAA	1261	Qy
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വ -		1201	Qy
	ggctgtagocaccaggacagctagaattgggcctgcacagaggggaggcct	1201	Db
CTGGG 1200	CTTCCCCTTAAACGCCCCTCCCAAGTGAAGTGATCCAGAGGCCACACCGAGCTCC	1141	Qγ
- 6	ttoccottaaacgcccctcccaagtgaagtgatccagaggccacacccgagctcc	1141	Db
CCGAC 1140	TCACTGCCTGCACCCCCTCCGACGGCCCGGGCGGTGGCGCTGCCGCCTGACCTACC	1081	Qy
cga	cactgootgoacccootoogacggoogggoggtggcgctgccgcctgacctac	1081	Db
GCGTG 1080	GCGGCCCAAGAACCCGGCAGTCTCCGTCGTCCCCGCCAGGCCACCCGTGAC	1021	Qy
cgt.	cggccgccaagaacccggcagtctccgtcgtccccgccaggccaccacgcgtga	1021	Db
000	GCTTCCGCCAGCTCTGTCGCAC	961	γQ
gccct 1020	otacgcettcctggacgagaacttcaagcgctgcttccgccagctctgtcgcac	961	Дb
GGTTC 960	TGGCCGCACTGTGCATTGCGCTGGGCTACGCCAACAGCAGCCTCAACCCG	901	Qy
gtt	gccgcactgcacctgtgcattgcgctgggctacgccaacagcagcctcaaccc	901	מם
GIG	TCCACATCTTCGTCATCGTCTGGACGCTGGTGGACATCAATCGGCGCGCACCCACTT	841	ΔÃ
- ig - it	ccacatottogtcatogtotggaegotggtggaeatcaateggegegaeceact	841	Db
11111 3CCCA 840	GCCCATCACCCCCATGGTGCTGGTGGTGGCCCTTCGTGGTGTGTGT	781	QΥ

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                                               Query Match
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/product="delta opiate receptor"
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145; Conservative
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/db_xref="piD:g193943"
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/translation="metuPsaralelosspivnisdafpsafpsaganasgspgarsas
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SLALAIAITALYSAVCAVGLIGNVLVMFGIVRYIKKITATNIYIFNLALADALATSTL
pROSAKYLMETWPFGELLCKAVLSIDYYNMFTSLFTITMMSVDRYIAVCHPVKALDFR
TPAKAKLINICIWVLASGVGVPIMVMAVTQFROGAVVCMPFSFSWYDTVTTKTCT
LFAFVVPTLIJITVCYGLMLLRLSVRLLSGSKEEDRSLRRITRWVLVVVGAFVVCWAP
THIFYIYWTIJVDINRBDFLVVAALHLCIALGYANSSLMFVLYAFLDENFKRCFRQLCR
THIFYIYWTIJVDINRBDFLVVAALHLCIALGYANSSLMFVLYAFLDENFKRCFRQLCR
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                                                                                                                                                           CCAGCATTTGTGTTATGGGGAGGATCTCTCATCTTAGAGAAGATAAGGGGGACAGGGCATT
                                     ccagcatttgtgttatggggaggatctctcatcttagagaagataaggggacagggcatt
                                                                                                               GAGATAACATCGGGTTCTGGCCAAAAAGAACACC-AGCTCCAGTCCAAGACCCCAAGGATT
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LFAFVVPILIITVCYGLMLLRIRSVRLLSGSKEKDRSLRRITRWYLVVVGAFVVCWAP
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KEYWORDS SOURCE

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Cloning of a delta opioid receptor
Science 258, 1952-1955 (1992)
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Japan
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Eppler, C.M. and Uhl, G.R.
CDNA cloning of an orphan opiate
its splice variant
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Vertebrata; Eutheria; Rodentia; Sciurognathi; Myomorpha;
Murinae; Rattus.
                                                                                                                                                                                                                                                                                             Similarity
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075-811-8186.
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/db_xref="pin:q391865"
/translation="merpysaraelorsllanvsDTFPSAFPSASANASGSPGARSAS
SLALAIAITALYSAVCAVGLLGNVLVMEGIVRYTKLKTATNYYIENLALADALATSTL
FRGSAKYLMETWPFGELLCKAVLSIDYXNMFTSIFTLIMMSVDRY IAVCHPVKALDER
TPAKAKLILICIWVLASGCYGVIMVAAVTOPROGAVVCILOFESSWYWDTVTKICVF
LFAFVVFILIITVCYGLMLLRLRSVRLLSGSKENDRSLRRITENVLVVVGAFVCWAP
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /strain="Wistar"
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Knapp,R.J., Malatynska,E., Fang,L., Xiaoping,L., Nguyen,M., Santoro,G., Varga,E.V., Hruby,V.J., Roeske,W.R. and Yamamura, Identification of a human delta opioid receptor: Cloning and
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/product="delta opioid receptor"
/db_xref="plD:9497314"
/db_xref="plD:9497314"
/translation="MEPAPSAGAELQPPLFANASDAYPSAFPSAGANASGPPGPGSAS
SLALAIAITALYSAVCAVGLLGNVLYMEGIVRYTKMKTATNIYIFNLALADALATSTL
PFQSAKYLMETWPFGELLCKAVLSIDYLWMETGIFTLTMMSYDYRIAVCHYVRALDFR
TPAKAKLINICIWVLASGVGVPIMYMAVTRPRDGAVVCMLQFPSPSWYWDTVTKIVCWAP
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/tissue_type="cerebral
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              Simonin, F., Befort, K., Gaveriaux-Ruff, C., Matthes, H., Nappey Lannes, B., Micheletti, G. and Kieffer, B.
The human delta-opioid receptor: genomic organization, cDNA cloning, functional expression, and distribution in human by Mol. Pharmacol. 46 (6), 1015-1021 (1994)
                                                                                       Eukaryotae; mitochondrial eukaryotes; Metazoa; Chordat. Vertebrata; Eutheria; Primates; Catarrhini; Hominidae; 1 (bases 1 to 1136)
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Submitted (10-JUN-1994) Brigit
biotechnologie de Strasbourg,
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LFAFVVPILIITVCYGLMLLALRIKSVRLLSGSKEKDRSLRRITHMVLVVVGAFVVCWAP
LHIFVIWTLVDIDRRDPLVYAALHLCIALGYANSSLNPVLYAFLDENFKRCFRQLCR
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Brown, D.R., Poonyachotti, S., Osinski, M.A.,
Pampusch, M.P., Elde, R.P. and Murtaugh, M.P.
Delta-optoid receptor mRNA expression and
Localization in porcine small intestine
                                                                                                                                                                                                                                                                                                                                                                                                                                       pig.
Sus scrofa
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Submitted (18-SEP-1996) Veterinary Minnesota, 1988 Fitch Avenue, St. P
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                                                                          /codon_start=1
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mu opioid receptor.
Rattus norvegicus (strain Sprague-Dawley) cDNA
Rattus norvegicus
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Thompson, R.C., Mansour, A.,
                                                                                                                 receptor
                                                                                                                                                                               Murinae; Rattus
                                                                                                                                                                                              Vertebrata; Eutheria;
                                                                                                                                                                                                              Eukaryotae; mitochondrial
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                                                                                                                                                                                                                                                                                                           opioid
/organism="Rattus norvegicus"
/strain="Sprague-Dawley"
/sex="male"
                                                              Location/Qualifiers
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terization of
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                                                                                                       gtggtcgtggctgtatttatcgtctgctggacccccatccaccatctacgtcatcatcaaa
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/db_xref="pip:9437672"
/db_xref="pip:9437672"
/db_xref="pip:9437672"
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MSVDRYIAVCHPYKALDFRTPRNAKIVNYCNWYLSSAIGLPVMATTXXQGSDDCT
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/tissue_lib="lambda ZAPII from
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RITRMVLVVVAVEIVCMTPIHIYVIIKALITIPBTTFQTVSWHFCIALGYINSCLNPV
LYAFIDENFKRCFREFCIPTSSTIEQQNSTRVRQNTREHPSTANTVDRTNHQLENLEA
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Bunzow, J.R.
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Bunzow, J.R., Zhang, G., Bouvier, C.,
Kelly, M.J. and Grandy D.K.
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                                                                                                                                                                                                            rat brain
                                                                                                                                                                                           Pharmacol. 44, 8-12 (1993)
                                                                                                                                                                                                                                                                                                                                                                                       A 1586
norvegicus
                                                                                                    /organism="Rattus norvegicus"
/tissue_type="Whole brain"
210..1406
/product="mu opioid receptor"
/db_xref="piD:9348251"
/tanslation="MDSSTQ=FGNTSDCSDPLAQASCSPAPGSWLNLSHYDGNQSDPCG
/translation="MDSSTQ=FGNTSDCSDPLAQASCSPAPGSWLNLSHYDGNQSDPCG
LNRTGLGGNDSLCPQTGSPSMYTAITIMALYSIVCVVGLFGNFLVMYVIVRYIKMKTA
                                                          /evidence=experimental
/label=RATMOR1
                                                                                          /codon_start=1
                                                                                                                                                                Location/Qualifiers
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Rodentia; Sciurognathi;
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   TTCAAGCGCTGCTTCCGCCAGCTCTG
                             ttcaagcgatgcttcagagagttctg
                                                                              ACGCTGGTGGACATCAATCGGCGCGCGCCCACTTGTGGTGGCCGCACTGCACCTGTGCATT
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MSVDRYIAVCHPVRALDFRTPRNAKIVNVCHWILSALGLPWEMATTKKQGSIDCT
LITESHPTWYMENLLKICVFIFAFIMPILLITVCYGLMILRIKSVFMLSGSKEKDENLR
RITRAVILVVAAVFIVCWTPIHIYVIKALITIPETTFQIVSWHFCIALGYTNSCLNPV
LYAFILDENFKRCFREFCIPTSSTIEQQNSTRVRQNTREHPSTANTVDRINHQLENLEA
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Pred. No. 5.32e-282;
0; Mismatches 240;
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TITLE
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ttcatggcaaccacaaaatacaggcagggtccatagattgcaccctcacgttctcccac
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                                                                                                                                                                     CTCTCCATTGACTACAACATGTTCACTAGCATCTTCACCCTCACCATGATGAGCGTG
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                                                                                                                                                                                                                                CAGAGCGCCAAGTACTTGATGGAAACGTGGCCGTTTGGCGAGCTGCTGCAAGGCTGTG
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                                              GCCAAGCTGATCAATATATGCATCTGGGTCTTGGCTTCAGGTGTCGGGGTCCCCATCATG
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Mu opiate receptor.
Mu opiate receptor.
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Mu opiate receptor: cDNA cloning
Proc. Natl. Acad. Sci. U.S.A. 90,
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1 (bases 1 to 2135)
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larity 71.8%;
Conservative
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LNRTGLGGNDSLCPQTGSSBWTVAITIMALYSIVCYVGLEGNEVATVAYTAYTKKKTA
TNIVLIPILALADALATSLEPGOSVULIMGTWPFGTILOXIVISIDYYNMTSIFTLCT
MSVDRYIAVCHPVKALDFRIPRNAKIVNVCNWILSSAIGLPVMFMATTKYRQGSIDCT
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ETAPLP"
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RITRMYLVVVAVFIVCWTPIHTYVIIKALITIPETTFQTVSWHFCIALGYTNSCLNPV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /product="Mu opiate receptor"
/db_xref="PID:g409150"
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/tissue_type="cortex"
/tissue_lib="lambda ZAP (Stra
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Eutheria; Rodentia; Sciurognathi; !
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Pred. No. 3.10e-280;
0; Mismatches 241;
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g391866
G-protein
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Rattus n
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c/o Shimadzu Corporation N
1 Nishinokyo-Kuwahara-cho
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FEBS Lett. 327 (3), 311-314 (1993)
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Fukuda, K., Kato, S., Mor
Primary structures and
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Vertebrata; Eutheria; Rod
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/Godon_start=1
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LIFSHPTWWENLLKICVFIFAFIMPVLIITVCYGLMLIRLKSVRMLSGSKEEDRNLK
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                                                  GCGCTGGGCTACGCCAACAGCAGCCTCAACCCGGTTCTCTACGCCTTCCTGGACGAGAAC
                                                                  gctttgggttacacgaacagctgcctgaatccagttctttacgccttcctggatgaaaac
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HRESULF ACCOORS SECOND DE THE SULF PRESULF PRE PT Polyuclectides and peptides derived from opioid receptor PT Polyuclectides and peptides derived from opioid receptor PT polypeptides for use in therapeutic compositions and in PT screening assays for useful drug substances. Claim 6; Page 215-221; 300pp; English. CC The nucleotide sequence of the novel mouse delta opioid receptor gene CC mORDL. The gene was isolated from a mouse brain cDNA library using a CC fragment (amplified from the cDNA library with primers Q75999-30) as a CC probe. The primers are based on the conserved sequences present in the coscord and third transmembrane domains of somatostatin (SRIF) receptor CC subtypes SSTR1, SSTR2 and SSTR3. The 1.3 kb EccRI-SacI fragment from the CC mouse delta opioid receptor clone, lambda ms1-2, was subcloned into the CC CMV promoter-based expression vector pCMV-6c. The resultant construct come encoding the opioid receptor can be used to produce complete, cumcated or chimaeric opioid receptor proteins. The opioid receptors thus produced are useful for the development of novel assays designed to select or improve substances, capable of interacting with the opioid /product= mouse delta opi W09428132-A. 08-DEC-1994, 02-DEC-1994, 10-DEC-1994, 10-DEC-1994, 10-DEC-1994, 10-DEC-1993, 10-Mus musculus. Key CDS 17-AUG-1995 (first entry) Mouse delta opicid receptor mORD1 cDNA. MOUSE; kappa; delta; mu; opicid receptor; transmembrane domain; somatostatin; recept truncate; chimaeric; assay; probe; ss. 075927; 075927; 075927; 17-AUG-1995 (first entry) /*tag= delta opioid receptor Location/Qualifiers 12..1130 Yasuda ζ; aptor; brain; primer; PCR; amplify; receptor; human; expression vector;

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Best Local Similarity
Matches 2142; Conser
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(UVST-) UNIV PASTEUR STR.
Kieffer B;
                                                                                                                                                                                                                                                                                                                                                                                                    A CDNA bank constructed from hybridoma NG108-15, was used to transfect COS-1 cells. The cells were tested for ability to bind tritium-labelled Tyr-D-Thr-Gly-Phe-Leu-Thr, in the presence or absence of the opioid antagonist naloxone. Clone K56 was isolated from a positive colony and found to contain a 2216bp insert. This cDNA encodes a delta opioid (enkephalin) receptor with apparent dissociation constant 1.4nM and Bmax 3.9-6.4 pmole/mg protein. Sequence 2216 BP; 460 A; 647 C; 649 G; 460 T;
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FR2697850-A.
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Q66656;
19-JAN-1995
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P-PSDB; R66503.
New nucleic acid encoding
polypeptide, antisense nuc
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Murine delta opioid recept
delta opioid; enkephalin;
drug addiction; neurologic
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Seven putative membrane spanning regions were identified. The DOR-1 clone produces a delta receptor with a predicted mol. wt. of 40,558 kaltons prior to post-translational modifications.

Sequence 1821 BP; 339 A; 559 C; 541 G; 382 T;
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New nucleic acid encoding new human mu opioid receptor - and related vectors, transformed cells, antibodies etc., useful in diagnosis, treatment and drug screening.

Disclosure; Page 199-203; 265pp; English.

A 365 bp fragment of the mouse delta opioid receptor was used to screen a rat brain cDNA library under low stringency conditions.

One positive clone included the sequence given in Q89222, encoding mu opioid receptor, MOR-1 (R71964). Sequence analysis revealed an alternative reading frame (Q89223) encoding a zinc finger-containing transcription regulatory protein (R71965). Sequence 1618 Bp; 390 A; 486 C; 370 G; 372 T;
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Transcription regulatory protein cDNA.
Mu opioid receptor; MOR-1; gene therapy;
transcription regulatory protein; ss.
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23-MAR-1995.
13-SEP-1994; U10358.
13-SEP-1993; US-120601.
(INDV) UNIV INDIANA FOUND.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 New nucleic acid encoding new human mu opioid receptor - and related vectors, transformed cells, antibodies etc., useful in diagnosis, treatment and drug screening.

Disclosure; Page 190-194; 266pp; English.

A 365 bp fragment of the mouse delta opioid receptor was used to screen a rat brain cDNA library under low stringency conditions. One positive clone included the sequence given in Q89222, encoding mu opioid receptor, MOR-1 (R71964). MOR-1 was stably expressed in
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P-PSDB; R71964.
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Q89222 standard;
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Mismatches 240;
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Claim 1; Fig 11; 39pp; English.
R65188 is the rat mu-subtype opioid receptor protein
from rat brain membranes, with biotinyl-b-endorphin
as its ligand. It is encoded by the nucleotide sequen
                                                                     (AMCY) AMERICAN CYANAMID
Corbett MJ, Eppler CM, S
WPI; 94-265963/33.
P-PSDB; R65188.
                                                                                                                 31-AUG-1994.
09-FEB-1994; 101968.
26-FEB-1993; US-026140
                                                                                                                                                                                                               Mu-subtype opioid receptor; Rattus rattus.
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Q79199 standard;
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EP-612845-A.
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Rat mu-subtype opioid receptor
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Best Loc
Matches
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Sequence 2070 BP; 526 A; 564 C; 423 G; 557 J
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larity 71.7%;
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. No. 5.94e-223;
Mismatches 242;
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15-SEP-1994 (first entry)
Partial sequence of the murine m
(MOR-1, MOR-lalpha)
Opioid receptor; morphine; opiat
Mus musculus.
W09404552-A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  03-MAR-1994.
13-AUG-1993; U07665.
13-AUG-1992; US-929200.
(REGC) UNIV CALIFORNIA.
Edwards RH, Evans CJ,
WPI; 94-083099/10.
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Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DNA encoding opicid receptors and antibodies against this receptor - used to express and locate these receptors, and screen cpds. for opicid (ant)agonist activity

Example; Fig 9; 74pp; English.

A cDNA library prepd. from mouse brain was probed using DOR-1 (see Q56704) as a probe. One clone was recovered and sequenced. This clone, designated DOR-2, represented a new gene. DOR-2 hybridised to a different pattern of heworns than did DOR-1 and showed greate to a different pattern of heworns than did DOR-1 (mMOR-1) as that o amu receptor was confirmed.
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                                                       CTGCTGTCCGGTTCCAAGGAGAAGGACCGCAGCCTGCGGCGCATCACGCGCATGGTGCTG
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l Similarity 71.1%;
616; Conservative
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; US-929200.
V CALIFORNIA.
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. No. 5.19e-216;
Mismatches 247;
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Matches 60
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Q89226;
Q89226;
Q89226;
20-OCT-1995 (fir
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      New nucleic acid encoding new human mu opioid receptor - and related vectors, transformed cells, antibodies etc., useful in diagnosis, treatment and drug screening.

Claim 5; Page 208-210; 266pp; English.

A CDNA library constructed from human caudate nucleus mRNA was screened with rat mu opioid receptor cDNA under conditions of low stringency. One positive clone included the sequence given 689226, encoding a mu opioid receptor MOR (R71964). The CDNA is used for prodm. of recombinant MOR, in gene therapy, etc. sequence 1610 BP; 384 A; 467 C; 359 G; 400 T;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1105
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13-SEP-1994; U10358.
13-SEP-1993; US-120601.
(IDV ) UNIV INDIANA FO
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Pred. No. 5.38e-207;
0; Mismatches 248;
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                                                                                                                                                                                      of 3-AUG-1995.

of 3-AUG-1995.

of 30-JAN-1995; U0:1144.

of 28-JAN-1994; U0:188275.

A (USSH) US DEPT HEALTH & HUMAN SERVICES.

A (USSH) US DEPT HEALTH.

Johnson PS, Persico AM, Uhl G, Wang J;

WPI; 95-275452/36.

of P-PSDB; R76780.

of P-PSDB; 
                               Query Match
Best Local :
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Best Local S
Matches 61
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07-JUL-1995; F00912.
11-JUL-1994; FR-008531.
(UYST-) UNIV PASTEUR STRASBOURG LO
Kieffer B, Simonin F;
WPI; 96-097628/10.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Claim 3; Page 13-15; 30pp; French.

This sequence codes for the human kappa opioid receptor and was obtained from two overlapping cDNA fragments isolated from a human placental cDNA library. The fragments were amplified from the library using PCR primers based on the sequence of human genomic clones which hybridised with a murine delta receptor cDNA probe. Nucleotide probes derived from the kappa opioid receptor cding sequence are useful for diagnosis of neurological, cardio-contact and psychiatric disorders associated with opioid
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W09601898-
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Claim 3; Page
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619; Conservative
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                                                                                                                                                                                                                                                                                  Prolypeptides for use in therapeutic compositions and in prolypeptides for use in therapeutic compositions and in proceeding assays for useful drug substances.

PS Claim 10; Page 207-211; 300pp; English.

CC The nuclectide sequence of the novel mouse kappa opicid receptor gene comment. The gene was isolated from a mouse brain cDNA library using a cc fragment (amplified from the cDNA library with primers Q75929-30) as a cc probe. The primers are based on the conserved sequences present in the cc second and third transmembrane domains of somatostatin (SRIP) receptor cc subtypes SSTR1, STR2 and SSTR3. The 1.2 kb PstI fragment from the mouse cc subtypes SSTR1, STR2 and SSTR3. The 1.2 kb PstI fragment from the mouse cc kappa opicid receptor clone, lambda msl-1, was subcloned into the CMV cc promoter-based expression vector pCMV-6b. The resultant construct cc pCMV-msl-1 was transfected into COS-1 cells for protein production. The cc gene encoding the opicid receptor can be used to produce complete, cc thus produced are useful for the development of novel assays designed to select or improve substances, capable of interacting with the opicid creceptor proteins, for use in diagnosis, drug design and therapeutic
                                                                                                                                                                                  Query Match
Best Local Similarity
Matches 597; Conser
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/product= mouse kappa opi
W09428132-A.
08-DEC-1994.
08-DEC-1994; U05747.
20-MAX-1993; US-066296.
30-JUL-1993; US-100694.
05-NCV-1993; US-147592.
(ARCH-) ARCH DEV CORP.
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Mouse; kappa; delta; mu; opioid receptor; brain; primer; PCR; amplify; transmembrane domain; somatostatin; receptor; human; expression vector truncate; chimaeric; assay; probe; ss.
                                                                                                                                                                                                                                                        applications.
Sequence 1410
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Polynuclectides and peptides derived from opioid receptor Polynuclectides and peptides derived from opioid receptor
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Q75926;
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                                     GTTTGGCATCGTCCGGTACACCAAATTGAAGACCGCCACCAACATCTACATCTTCAATCT
                                                          CATCACCGCGCTCTACTCGGCTGTGTGCGCAGTGGGGCTTCTGGGCAACGTGCTCAT
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.larity 70.8%;
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Pred. No. 1.73e-174;
0; Mismatches 234;
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13-SEP-1994; U10358.

13-SEP-1993; US-120601.

(INDV) UNIV INDIANA FOR
                                                                                                                                                                                                                                                                                                                                                                  Rat opioid receptor cDNA. Opioid receptor; MOR-1; gRattus sp.
                                                                                                         WPI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Q89233 standard; cDNA; Q89233;
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                        New nucleic acid encoding new human mu opioid receptor related vectors, transformed cells, antibodies etc., use
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The cDNA given in Q89233 was isolated from a rat brain library low stringency hybridization with rat mu opicid receptor cDNA (Q89232). The clone encoded a 367-amino acid protein (R71968) that showed high homology with mu, kappa and delta opicid receptut lacked affinity for their ligands, suggesting it to be a novel member of the opicid receptor family.

Sequence 1567 BP; 313 A; 440 C; 402 G; 412 T;
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                                                                                                                                                                                 TTCGTGGTGTGCTGGGCGCCCATCCACATCTTCGTCATCGTCTGGACGCTGGTGGACATC
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                                                        AACAGCAGCCTCAACCCGGTTCTCTACGCCTTCCTGGACGAGAACTTCAAGCGCTGCTTC
                                                                                                                     AATCGGCGCGACCCACTTGTGGTGGCCGCACTGCACCTGTGCATTGCGCTGGGCTACGCC
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Pred. No. 2.79e-168;
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Best Local
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30-JUL-1993, 190261,
09-JUL-1993, JP-170591,
(TAKE ) TAKEDA CHEM IND I
WPI, 95-144857/19.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                The nucleotide sequence of the novel mammalian kappa opioid receptor CDNA. The gene was isolated by amplifying a fragment from rat brain mRNA by reverse transcriptase-PCR (RT-PCR) using primers 086726-7 derived from the mouse delta-opioid receptor gene. This fragment was cloned into the plasmid pCRII to produce pRII. The plasmid pRII was used to probe a rat brain DNA library in lambda ZAPII to obtain a clone of the rat Kappa opioid receptor gene, designated pROPR2. This clone was introduced into the E.coli JMI09 for production of the receptor protein. The receptor protein is useful for screening of analgesic and hypnotic compounds including peptides and proteins. 629 A; 588 C; 544 G; 720 T;
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Claim 2; Page 9-10; 15pp;
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J07070191
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Mammalian kappa opioid receptor; mouse delta opioid receptor; analgesic;

Mammalian kappa opioid receptor; mouse delta opioid receptor; analgesic;

Mammalian kappa opioid receptor; mouse delta opioid receptor; analgesic;

Mammalian kappa opioid receptor protein cDNA.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Key
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Pred. No. 3.26e-166;
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Disclosure; Fig.1; 35pp; English.
Primers based on rodent opoid receptors were used to amplify rat genomic DNA. Products were re-amplified and subcloned into pCR-II vector and amplified in E. coli. Plasmid DNAs were isolated, and an unspliced sequence was obtd. (Q92972) encoding the transmembrane domain opiorph receptor protein OR7.

Sequence 2706 BP; 569 A; 675 C; 704 G; 758 T;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            New
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Q92972;
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21-JAN-1994; US-185360
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27-JUL-1995.
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DNA encoding opioid receptors and antibodies against this receptor - used to express and locate these receptors, and screen cpds. for opioid (ant)agonist activity

Example; Fig 8c; 74pp; English.

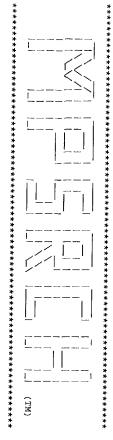
To isolate opiate receptor genomic clones, 300,000 human genomic clones and a similar number of mouse genomic clones were probed with the 1.1 kb mouse delta opioid receptor clone DNR-1 Pst/Xbal fragment. One mouse clone and three human genomic clones were isolated. The 3 human clones had very different coRI patterns which indicated that three different genes were represented by thuman genomic clones which were designated H3, H14 and H20. H20 to chromosome 6. It encodes the human mu receptor. In addition,
                                                                                                                                                                                                                            13-AUG-1993;
13-AUG-1992;
(REGC_) UNIV
                                                                                                                                                                                          (REGC ) UNIV CALIFORNII Edwards RH, Evans CJ, WPI; 94-083099/10.
                                                                                                                                                                                                                                                                                                                       15-SEP-1994 (first entry)
Partial sequence of the human mu opioid
genomic clone #20 (MORA).
Opioid receptor; morphine; opiate; ss.
                                                                                                                                                                                                                                                                          03-MAR-1994.
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Matches 48
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Similarity 62.8%;
484; Conservative
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Pred. No. 2.91e-157;
0; Mismatches 282; Indels
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Search completed: Tue Aug 26 09:53:09 1997 Job time: 286 secs.

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Release 2.1D John F. Collins, Biocomputing Research Unit. Copyright (c) 1993, 1994, 1995 University of Edinburgh, U.K. Distribution rights by IntelliGenetics, Inc.

MPsrch_pp protein - protein database search, using Smith-Waterman algorithm

Tabular output not generated. Run on: Tue Aug 26 07:50:18 1997; MasPar time 14.95 Seconds 539.070 Million cell updates/sec

Title:

Description: Perfect Score: >US-08-292-694A-2 (1-380) from US08292694A.pep 2839

Sequence: 1 MESPIQIFRGDPGPTCSPSA.....RNTVQDPASMRDVGGMNKPV 380

Scoring table: PAM 150 Gap 11

Searched: 59021 seqs, 21210388 residues

Post-processing: Minimum Match 0% Listing first 45 summaries

Database:

swiss-prot34
1:part1 2:part2 3:part3 4:part4 5:part5 6:part6 7:part7
8:part8 9:part9 10:part10 11:part11

Statistics: Mean 49.868; Variance 103.252; scale 0.483

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

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938 88	954	0 0 0 0 0 0	976	978	980	1447	1465	1471	1473	1597	1608	1610	1675	1676	1678	2610	2747	2829	2839	Score
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ALIGNMENTS

CCC DR DR DR DR	44888888888	R R R R R R R R R R R R R R R R R R R	RA RA	RESULT
-!- SIMILARITY: BELONGS TO FAMILY 1 OF G-PROTEIN COUPLED RECEPTORS. EMEL; D3165; G348249; EMEL; D3165; G808876; JOINED. EMEL; D31663; G808876; JOINED. EMEL; D31664; G808876; JOINED. EMEL; D31664; G808876; JOINED. EMEL; S77872; G998532; EMEL; S77868; G998532; JOINED. EMEL; S77869; G998532; JOINED.	EM. E UNCTI		UENCE F SUE=BRA LINE; 9 UDA K., L G.I.; C. NATL	ILT 1 OPR MOUSE STANDARD; PRT; 380 AA. P3534; 01-FEB-1994 (REL. 28, CREATED) 01-FEB-1994 (REL. 28, LAST SEQUENCE UPDATE) 01-OCT-1996 (REL. 34, LAST ANNOTATION UPDATE) C1-OCT-1996 (REL. 34, LAST ANNOTATION UPDATE) KAPPA-TYPE OPTOID RECEPTOR (KOR-1) (MSL-1). MUS MUSCULUS (MOUSE). EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA; EUTHERIA; RODENTIA

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Best Local s
Matches 38
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DOMAIN 1

TRANSMEM 59

DOMAIN 186

DOMAIN 189

DOMAIN 113

DOMAIN 155

TRANSMEM 174

DOMAIN 223

DOMAIN 276

TRANSMEM 276

DOMAIN 300

TRANSMEM 312

DOMAIN 312

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P34975;
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01-FEB-1994 (REL. 2
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 SEQUENCE FROM N.A. TISSUE=BRAIN;
                                                                      RATTUS NORVEGICUS ( EUKARYOTA; METAZOA;
                                                                                                           ROR-D
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similarity 100.0%;
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. 28, LAST SEQUENCE SECUENCE ANNO RECEPTOR (KOI
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                                                                      (RAT).
\; CHORDATA;
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R (KOR-1).
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S -> L (IN REF. 2
F -> V (IN REF. 2
I) C6F33212 CRC32;
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6 (POTENTIAL
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CYTOPLASMIC (POTENTIAL).
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EXTRACELLULAR (POTENTIAL)
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EMBL; D16829; G4048189; -.
EMBL; U00442; G403487; -.
EMBL; U10942; G415310; -.
EMBL; U17995; G727260; JOIN
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MINAMI M.,
KANEKO S.,
               DOMAIN
TRANSMEM
DOMAIN
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DOMAIN
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FEBS LETT.
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MEDLINE; 94052210.
MENG F., XIE G.-X., THOMPSON R.C., MANSOUR A.,
WATSON S.J., AKIL H.;
PROC. NATL. ACAD. SCI. U.S.A. 90:9954-9958(1993
                                                                                                                                                    TRANSMEM
DOMAIN
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J. BIOL. CHEM. 270:6421-6424(1995).

-I- FUNCTION: INHIBITS NEUROTRANSMITTER RELEASE BY REDUCING CALCIUM ION CORRENTS AND INCREASING POTASSIUM ION CONDUCTANCE. RECEPTOR FOR DYNORPHINS. MAY PLAY A ROLE IN AROUSAL AND REGULATION OF AUTONOMIC AND NEUROENDOCRINE FUNCTIONS.
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CHEN Y., MESTEK A.,
BIOCHEM. J. 295:625
                                                                                                                                                                                                                                                                                                        G-PROTEIN COUPLED
                                                                                                                                                                                                                                                                                                                                         GCRDB; GCR_0804
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MEDLINE; 93380575.
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BIOCHEM. J. 295:629-633(1993).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SUBCELLULAR LOCATION: INTEGRAL MEMBRANE PROTEIN. SIMILARITY: BELONGS TO FAMILY 1 OF G-PROTEIN COUPLED RECEPTORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ZHU J
                                                                                                                                                                                                                                                                                                                                                               GCR_0790;
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; 93374033.
M., TOYA T., F
S., SATOH M.;
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CHEN C.,
                                                                                                                                                                                                                                                                                      LIPOPROTEIN;
                                                                                                                                                                                                                                                                                  G_PROTEIN_RECEPTOR.
RECEPTOR; TRANSMEMBRANE;
LIPOPROTEIN; PALMITATE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LIU J., YU
-628(1993).
KATAO Y.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                        JOINED.
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CYTOPLASMIC (PC
2 (POTENTIAL)
EXTRACELLULAR
3 (POTENTIAL)
CYTOPLASMIC (PC
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                                                       EXTRACELLULAR
5 (POTENTIAL).
CYTOPLASMIC (P
6 (POTENTIAL).
                   EXTRACELLULAR 7 (POTENTIAL).
                                                                                                                                                                                                                                                                  EXTRACELLULAR (POTENTIAL).
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                                                                                                                                    (POTENTIAL)
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 (POTENTIAL)
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                                                                                                                (POTENTIAL)
                                                                                                                                                                                           (POTENTIAL)
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                                     (POTENTIAL)
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01-FEB-1995 (REL. 3
01-FEB-1996 (REL. 3
KAPPA-TYPE OPIOID I
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P41145;
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LIPID
CARBOHYD
CARBOHYD
CONFLICT
CONFLICT
SEQUENCE
MEDLINE; 95174504.

ZHU J., CHEN C., XUE J.C., KUNAPULI S., DE LIFE SCI. 56:201-207(1995).

-i- EUNCIION: INHIBITS NEUROTRANSMITTER RE ION CURRENTS AND INCREASING POTASSIUM
                                                                                                                                             MEDLINE; 95350200.
SIMONIN F., GAVERLAUS-RUFF C.,
MATTEI M.-G., CHARON G., BLOCH
PROC. NATL. ACAD. SCI. U.S.A. 9
                                                                                                                                                                                                                                                                           MANSSON I
                                                                                                                                                                                                                                                                                                                                                                                 HOMO SAPIENS (HUMAN).
EUKARYOTA; METAZOA; C
EUTHERIA; PRIMATES.
                                                                                            SEQUENCE FROM TISSUE=BRAIN;
                                                                                                                                                                                                                                       SEQUENCE FROM N.A.
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MEDLINE; 94338360.
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376; Conser
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larity 98.9%;
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31, LAST
33, LAST
RECEPTOR
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POTENTIAL.

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3; M
                                                                                                                                           , BEFORT K., LANNES
H B., KIEFFER B.;
92:7006-7010(1995).
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2 -> Y (IN
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CRC32;
   RELEASE BY REDUCING OM ION CONDUCTANCE.
                                                      DERIEL J.K.,
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DOMAIN 1
TRANSMEM 59
DOMAIN 86
TRANSMEM 96
DOMAIN 118
TRANSMEM 133
DOMAIN 155
TRANSMEM 223
TRANSMEM 223
DOMAIN 224
DOMAIN 248
TRANSMEM 278
TRANSMEM 310
TRANSMEM 312
DOMAIN 314
DISTULFID 131
LIPID 25
CARBOHYD 25
CARBOHYD 39
CONFLICT 2
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-!- SUBCELLULAR LOCATION: INTEGRAL MEMBRANE PRO-
EMBL; U11053; G532060; -.
EMBL; U11053; G53206070; -.
EMBL; L137362; G722618; -.
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165196; -.
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Llarity 93.9%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                        AA;
                                               STANDARD;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         G_PROTEIN_RECEPTOR.
RECEPTOR; TRANSMEMBRANE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                         42659
                                                                                                                                                                                                                                                                                                                                                                                                                                                         WW;
                                                                                          380
                                                                                                                                                                                                                                                                                                                                                                                                           Score 2747;
Pred. No. 0.1
17; Mismatcl
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CYTOPLASMIC (F
2 (POTENTIAL).
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BY SIMILARITY
PALMITATE (POI
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6 (POTENTIAL).
EXTRACELLULAR (
7 (POTENTIAL).
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3 (POTENTIAL).
CYTOPLASMIC (POTENTIAL).
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E -> D (IN
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1 OF G-PROTEIN COI
                                               380
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.00e+00;
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CRC32;
                                               AA
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31, 31, 32,

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LAST SEQUENCE |
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Best Local S
Matches 33
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TRANSMEM 59 85 CY.

TRANSMEM 113 154 3

DOMAIN 155 173 CY.

TRANSMEM 174 196 4

DOMAIN 197 222 EX.

TRANSMEM 223 247 5

DOMAIN 223 247 5

TRANSMEM 276 299 6

TRANSMEM 276 299 6

TRANSMEM 310 311 EX.

TRANSMEM 312 333 7

DOMAIN 334 380 CY.

DISTIPLID 345 345 PA.

CARBOEYD 25 25 PO.

CARBOEYD 39 39 PO.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               XIE G.X., MENG F., MANSOUR A., THOMPSON R.C., HOVERSTEN M.T.,
GOLDSTEIN A., WATSON S.J., AKIL H.;
PROC. NATL. ACAD. SCI. U.S.A. 91:3779-3783(1994).
-!- EUNCTION: INHIBITS NEUROTRANSMITTER RELEASE BY REDUCING CALCIUM
-!- EUNCTION: INHIBITS NEUROTRANSMITTER RELEASE BY REDUCING CALCIUM
ION CURRENTS AND INCREASING POTASSIUM ION CONDUCTANCE. RECEPTOR
FOR DYNORPHINS. MAY PLAY A ROLE IN AROUSAL AND REGULATION OF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          EMBL; U04092; G476107; -.
GCRDB; GCR.0931; -.
PROSITE; PS00237; G_PROTBIN_RECEPTOR.
G-PROTEIN COUPLED RECEPTOR; TRANSMEMB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     KAPPA-TYPE OPIOID RECEPTOR (KOR-1).
CAVIA PORCELLUS (GUINEA PIG).
EUKARYOTA; METAZOA; CHORDATA; VERTE
EUTHERIA; RODENTIA.
                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A. STRAIN=HARTLEY; TISSUE=BRAIN; MEDLINE; 94224825.
    377
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SUBCELLULAR LOCATION: INTEGRAL MEMBRANE PROTEIN.
SIMILARITY: BELONGS TO FAMILY 1 OF G-PROTEIN COUPLED RECEPTORS
nkpv
                                                                                                                                                                                                                                                                                                                 ALGYTNSSLNPVLYAFLDENEKRCFRDFCFPIKMRMERQSTNRVRNTVQDPASMRDVGGM
                                            a.lgytnsslnpilyafldenfkrcfrdfcfpikmrmerqstsrvrntvqdpaymrnvdgv
                                                                               rllsgsrekdrnlrritrlvlvvvavfiicwtpihifilvealgstshstaalssyyfci
                                                                                                                                     CGTKVREDVDVIECSLQFPDDEXSWWDLFMKICVFVFAFVIPVLIIIVCYTLMILRLKSV
                                                                                                                                                  idyynmftsiftltmmsvdryiavchpvkaldfrtplkakiiniciwllsssvgisaiil
                                                                                                                                                                                                                                             NSLVMFVIIRYTKMKTATNIYIFNLALADALVTTTMPFQSAVYLMNSWPFGDVLCKIVIS
                                                                                                                                                                                                                                                            nslvmfviirytkmktatniyifnlaladalvtttmpfqstvylmnswpfgdvlckivis
                                                                                                                                                                                                                                                                                                  SPSACLLPNSSSWFPNWAESDSNGSVGSEDQQLESAHISPAIPVIIIAVYSVVFVVGLVG
                                                                                                                                                                                         IDYYNMFTSIFTLIMMSYDRYIAVCHPVKALDFRTPLKAKIINICIWLLASSYGISAIVL
                                                                                                                                                                                                                                                                                                                                                      338;
                                                                                                                                                                                                                                                                                                                                                                  Similarity
    380
                                                                                                                                                                                                                                                                                                                                                                                                          380
                                                                                                                                                                                                                                                                                                                                                    91.9%;
ilarity 92.9%;
Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                          42736
                                                                                                                                                                                                                                                                                                                                                                                                          MW;
                                                                                                                                                                                                                                                                                                                                                    Score 2610;
Pred. No. 0.
21; Mismatc
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N; PALMITATE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         4 (POTENTIAL).

EXTRACELLULAR (POTENTIAL)

5 (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                     POTENTIAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2 (POTENTIAL).
EXTRACELLULAR (POTENTIAL).
3 (POTENTIAL)
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7 (POTENTIAL)
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2 (POTENTIAL
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BY SIMILARITY
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6 (POTENTIAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CYTOPLASMIC
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                                                                                                                                                                                                                                                                                                                                                                                                         CRC32;
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Best Local S
Matches 20
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EMBL; 010561; 6565069; -.
EMBL; 010558; 6565069; JOINED.
EMBL; 010559; 6565069; JOINED.
EMBL; 010560; 6565069; JOINED.
EMBL; 010560; 6565069; JOINED.
EMBL; 026915; G1055231; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               P42866;
01-NOV-1995
01-NOV-1995
01-NOV-1995
                                                                                                              CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MU-TYPE
                                                                                                                                                                                                                                                                                                                                                                                                                                                   FEBS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MUS MUSCULUS (MOUSE).
EUKARYOTA; METAZOA; C
EUTHERIA; RODENTIA.
                                                                                                                                                                                                                                                                                                                                  PROSITE; PS00237; G_PROTEIN_RECEPTOR.
G-PROTEIN COUPLED RECEPTOR; TRANSMEMBRANE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               [1]
SEQUENCE FROM N.A.
SEQUENCE FROM N.A.
TISSUE-LIVER;
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                                                                                                                                                                                                            TRANSMEM
                                                                                                                                                                                                                                                                              DOMAIN
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                                                                                                                                                                                                                                                                                                                           PHOSPHORYLATION;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MEDLINE; 95377399.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MEDLINE; 94377496
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119
                 128
                                    59
                                                      89
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                                  FOR BETA-ENDORPHIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                   I G.C., PAN Y.X., BROWN G.P., LETT. 369:192-196(1995).
        NKPV 380
YLMNSWPFGDVLCKIVISIDYYNMFTSIFTLTMMSVDRYIAVCHPVKALDFRTPLKAKII
                                                                         208;
                                                                                   Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      OPIOID RECEPTOR (MOR-1).
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L. ACAD. SCI. U.S.A.
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                                                                                                               398
                                                                                                                       351
351
38
46
                                                                          Conservative
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                                                                                                                                                                                                                                                                                                                          LIPOPROTEIN;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                32, CREATED)
32, LAST SEQUENCE UPDATE)
32, LAST ANNOTATION UPDATE
                                                                                  59.1%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
                                                                                                               44421 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FELSHEIM R.F., FUCHS J.A., S.A. 91:9081-9085(1994).
                                                                        Score 1678;
Pred. No. 2.
55; Mismatc
                                                                                                                                                                                        CYTOPLASMIC (POTENTIAL).

4 (POTENTIAL).

EXTRACELLULAR (POTENTIAL).

5 (POTENTIAL).

CYTOPLASMIC (POTENTIAL).

6 (POTENTIAL).

EXTRACELLULAR (POTENTIAL).

7 (POTENTIAL).
                                                                                                                                                                                                                                                                                     1 (POTENTIAL) CYTOPLASMIC (FOTENTIAL).
                                                                                                                                POTENTIAL.
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BY SIMILARITY
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3 (POTENTIAL).
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                                                                           Mismatches
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1 OF G-PROTEIN
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                                                                           49;
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                                                                                           Length 398;
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RECEPTOR
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THE SULF PROPERTY OF STREET OF STREE
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-!- SUBCELLULAR LOCATION: INT:
-!- TISSUE SPECIFICITY: BRAIN
BRAINSTEM AND CEREBRUM. NI
-!- SIMILARITY: BELLONGS TO FAI
EMBL; D16349; G391867; --
EMBL; L13069; G348251; --
EMBL; L13069; G348251; --
EMBL; L120683; G403574; --
EMBL; L22455; G437672; --
EMBL; L234593; G34593;
GCRDB; GCR_0637; --
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01-FEB-1994
01-FEB-1994
01-JUN-1994
                                                                                                                                                                                                                                                                              NEURON
                                                                                                                                                                                                                                                                                                                                                                                                          STRAIN-SPRAGUE-DAWLEY; TISSUE-BRAIN;
BUNZOW J.R., GRANDY D.K., KELLY M.;
SUBMITTED (SEP-1993) TO EMBL/GENBANK/DDBJ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MEDLINE; 93341493.
CHEN Y., MESTEK A., LIU J., H
MOL. PHARMACOL. 44:8-12(1993)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LT 6
OPRM_RAT
                                                                                                                                                                                                                                                                                              MEDLINE; 94059560.
THOMPSON R.C., MANSOUR A.,
NEURON 11:903-913(1993).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FEBS
                                                                                                                                                                                                                                                                                                                                                         STRAIN-SPRAGUE-DAWLEY;
                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE
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LAST SEQUENCE UPDATE)

LAST ANNOTATION UPDATE
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GCRDB; GCR_0885; -
GCRDB; GCR_0966; -
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SUBMINTED (XXX-1994)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MEDLINE; 94139928.
WANG J.-B., JOHNSON P.S., PERSICO A.M., HAWKINS A.L., GRIFFIN C.A., UHL G.R.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PHOSPHORYLATION;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MESTEK A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FEBS LETT. 338:217-222(1994).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CONFLICT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        -!- SUBCELLULAR LOCATION: INTEGRAL MEMBRANE PROTEIN COL-!- SIMILARITY: BELONGS TO FAMILY 1 OF G-PROTEIN COL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TRANSMEM
                                                                                                                                                                                                                                                                          130
                                      307
                                                                              239
                                                                                                                                                                                                                                    119
    299
                                                                                                                  247
                                                                                                                                                        179
                                                                                                                                                                                              190
                                                                                                                                                                                                                                                                                                              59
                                                                                                                                                                                                                                                                                                                                                  70
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MITTED (XXX-1994) TO EMBL/GENBANK/DDBJ DATA BANKS.
FUNCTION: INHIBITS NEUROTRANSMITTER RELEASE BY REDUCING
ION CURRENTS AND INCREASING POTASSIUM ION CONDUCTANCE. I
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FOR BETA-ENDORPHIN.
                                                                                                                                                                                        nvcnwilssaiglpvmfmattkyrqg-s-idctltfshptw-ywenlvkicvfifafimp
                                                                                                                                                                                                                                                              ylmgtwpfgtilckívisidyynmftsiftlctmsvdryiavchpvkaldfrtprnakii 189
                                                                                                                                                                                                                                                                                                                                              aitimalysivcvvglfgnflvmyvivrytkmktatniyifnlaladalatstlpfqsvn
                                                                                                vliitvoyglmilrlksvrmlsgskekdrnlrritrmvlvvvavfivowtpihiyviika
                                                                                                                                                                                                                                                                                                              PVIITAVYSVVEVVGLVGNSLVMEVIIRYTKMKTATNIYIENLALADALVTTTMPEQSAV
  LGSTSHSTAALSSYYFCIALGYTNSSLNPVLYAFLDENFKRCFRDFCFPIKMRMERQSTN
                      NICIWLLASSYGISAIVLGGTKVREDVDVIECSLQFPDDEYSWWDLFMKICVFVFAFVIP
                                                                                                                                                                                                                                    YLMNSWPFGDVLCKIVISIDYYNMFTSIFTLTMMSVDRYIAVCHPVKALDFRTPLKAKII
                                                                              VLIIIVCYTLMILRLKSVRLLSGSREKDRNLRRITKLVLVVVAVFIICWTPIHIFILVEA
                                                                                                                                                                                                                                                                                                                                                                                         207;
                                                                                                                                                                                                                                                                                                                                                                                                           Similarity
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400
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12
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51
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ÃĂ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LIPOPROTEIN;
                                                                                                                                                                                                                                                                                                                                                                                                           59.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   234
44764 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 POTENTIAL.
POTENTIAL.
POTENTIAL.
N -> D (IN |
V -> L (IN |
W; 3F40D610
                                                                                                                                                                                                                                                                                                                                                                                         52;
                                                                                                                                                                                                                                                                                                                                                                                                         Score 1675;
Pred. No. 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TRANSMEMBRANE; GLYCOPROTEIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CYTOPLASMIC
6 (POTENTIAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     POTENTIAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         POTENTIAL.
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5 (POTENTIAL).
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CYTOPLASMIC (
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (POTENTIAL)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                           Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          OF G-PROTEIN COUPLED RECEPTORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                           DB 7; I
.12e-302;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 REF. 2).
REF. 2).
CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (POTENTIAL).
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                                                                                                                                                                                                                                                                                                                                                                                           49;
                                                                                                                                                                                                                                                                                                                                                                                                                             Length 400.
                                                                                                                                                                                                                                                                                                                                                                                           Indels
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Best Local
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01-FEB-1994
01-FEB-1994
01-FEB-1995
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OPRD_RAT
                                                                                                                                                                                                                                     DISULFID
LIPID
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TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MEDLINE; 93351652.
FUKUDA K., KATO S., MORI K., NISHI M., TAKESHIMA H.;
FEBS LETT. 327:311-314(1993).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DELTA-TYPE
ROR-A.
                                                                                                                                                                                                                                                                                                                                TRANSMEM DOMAIN TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TRANSMEM
DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PROSITE; PS00237;
G-PROTEIN COUPLED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   EMBL; D16348; G391865; -. EMBL; U00475; G514211; -. PIR; S34592; S34592.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ABOOD M.E., NOEL M.A., FARNSWORTH J.S., TAO Q.;
J. NEUROSCI. RES. 37:714-719(1994).
-!- FUNCTION: INHIBITS NEUROTRANSMITTER RELEASE BY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              STRAIN=SPRAGUE-DAWLEY;
MEDLINE; 94322412.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                EUKARYOTA;
                                                                                                                                                                                                                   SEQUENCE
                                                                                                                                                                                                                                                                            CARBOHYD
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PHOSPHORYLATION;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GCRDB; GCR_0638; -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             -!- SUBCELLULAR LOCATION: INTEGRAL MEMBRANE PROTEIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A.
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                                                                                                                                                                                                                                                                                                                  DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                         DOMAIN
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                                                                                                                                                                                                                                                                                                                                                                                                                               MAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                               CRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                             RANSMEM
                    72
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                                                          22
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                                                                                      llanvsdtfpsafpsasanasgspgar--sas-slalaiaitalysavcavgllgnvlvm
fgivrytklktatniyifnlaladalatstlpfgsakylmetwpfgellckavlsidyyn 131
                                                        LLPNSSSWFPNWAESDSNGSVGSEDQQLESAHISPAIPVIITAVYSVVFVVGLVGNSLVM 81
                                                                                                                                                         Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RODENTIA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (REL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (REL.
                                                                                                                                       Conservative
                                                                                                                                                                                                                   ΑA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                369
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LIPOPROTEIN;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          28, CREATED)
28, LAST SEQUENCE UPDATE)
31, LAST ANNOTATION UPDATE)
RECEPTOR (DOR-1) (OPIOID RECEPTOR A).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            G_PROTEIN_RECEPTOR.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (RAT)
                                                                                                                                                         56.7%;
65.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CHORDATA;
                                                                                                                                                                                                                   40449
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                                                                                                                                                                                                                   WW;
                                                                                                                                   Score 1610;
Pred. No. 1.
55; Mismatc
                                                                                                                                                                                                                                                                                                                                                                                                           4 (POTENTIAL).
EXTRACELLULAR
5 (POTENTY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2 (POTENTIAL).
EXTRACELLULAR
3 (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TRANSMEMBRANE; GLYCOPROTEIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CYTOPLASMIC
2 (DOMEST)
                                                                                                                                                                                                                                                                          POTENTIAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3 (POTENTIAL)
CYTOPLASMIC (
                                                                                                                                                                                                                                                                                                              7 (POTENTIAL)
CYTOPLASMIC (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 (POTENTIAL)
                                                                                                                                                                                                                                     BY SIMILARITY. PALMITATE (POT
                                                                                                                                                                                                                                                                                                                                        EXTRACELLULAR
7 (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                      CYTOPLASMIC
6 (POTENTIAL
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                VERTEBRATA; TETRAPODA; MAMMALIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PALMITATE
                                                                                                                                                                                                                                                                                                                                                                          (POTENTIAL)
                                                                                                                                                                                                                   59F5EE50 CRC32;
                                                                                                                                       Mismatches
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                                                                                                                                                                                                                                     (POTENTIAL)
                                                                                                                                                             .94e-289;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (POTENTIAL).
                                                                                                                                                                             DB 7;
                                                                                                                                                                                                                                                                                                                  (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                           (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                    (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                 (POTENTIAL)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PROTEIN
                                                                                                                                       48;
                                                                                                                                                                           Length
                                                                                                                                         Indels
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                                                                                                                                                                               372;
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                                                                                                                                       9;
                                                                                                                                       Gaps
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Length

372;

Indels

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Gaps

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THE TENENT TO SOLUTION OF SOLU
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X MEDLINE; 95107267.

A SIMONIN F., BEFORT K., GAVERIAUX-RUFF C., MATTHES H., NAPPEY
A LANNES B., MICHELETTI G., KIEFFER B.;

MOL. PHARMACOL. 46:1015-1021(1994).

C -!- FUNCTION: INHIBITS NEUROITAMITTER RELEASE BY REDUCING
C ION CURRENTS AND INCREASING POTASSIUM ION CONDUCTANCE. H

STEREOSELECTIVE. RECEPTOR FOR ENKEPHALINS.

C -!- SUBCELLULAR LOCATION: INTEGRAL MEMBRANE PROTEIN
C -!- SUBCELLULAR LOCATION: OF FAMILY 1 OF G-PROTEIN COUPLED REC
R EMBL; U07882; G497314; -.

B MILLARITY: BELONGS TO FAMILY 1 OF G-PROTEIN COUPLED REC
R EMBL; U07882; G497314; -.
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EUKARYOTA; METAZOA; CHORDATA;
EUTHERIA; PRIMATES.
                                                                                                                                                                                                                                                                                                                                                                                        MIM; 165195;
PROSITE; PSO
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TISSUE=CEREBRAL CORTEX,
MEDLINE; 94260835.
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RO G., VARGA E.V., HRU
SCI. 54:463-469(1994).
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             STANDARD;
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31, LAST SEQUENCE SECUENCE (DOING TO CO.)
RECEPTOR (DOING TO CO.)
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RECEPTOR; TRANSMEMBRANE;
             E., FANG L.,
HRUBY V.J.,
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ANNOTATION UPDATE)
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ROESKE
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                                                                              (POTENTIAL)
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YAMAMURA H
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Matches 21
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01-0CT-1993 (REL. 27,
01-0CT-1996 (REL. 34,
DELTA-TYPE OPIOID REC
MUS MUSCULUS (MOUSE).
EUKARNOTA; METAZOA; C
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YASUDA K.
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KIEFFER B.L., BEFORT K.,
PROC. NATL. ACAD. SCI. U.
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                                                                                                                           REITH D.E. C
PROC. WEST.
                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A.
MEDLINE; 93110361.
EVANS C.J., KEITH D.E. JR.,
SCIENCE 258:1952-1955(1992)
[6]
3D-STRUCTURE
                                   SEQUENCE OF 8-372 FROM NMEDLINE; 94022364.
BIDEGA T., CHIN H., KIM
BIDEGA T., CHIN H., KIM
FROC. NATL. ACAD. SCI. U
                                                                                                                                              SEQUENCE FROM N
KEITH D.E. JR.,
                                                                                                                                                                                                  BELL G.I.;
PROC. NATL.
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.S.A. 89:12048-12052
                                                                                                                         EVANS C.J.;
C. 36:299-306(1993).
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Pred.
                                   JUNG H.H., KOZAK C.A
1. 90:9305-9309(1993)
                                                                                                                                                                                                                                                                                                                                               MORRISON
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4 <- 4
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5 -- 6
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C -!- SIMILARITY: BELONGS TO FAMILY 1 OF G-PROTEIN COUPLED RE REMBL; L106322; G192943; -.

R EMBL; L106322; G192943; -.

R EMBL; L107271; -; NOT_ANNOTATED_CDS.

R EMBL; S65335; G442326; -.

R EMBL; S65335; G442326; -.

R EMBL; S65135; G442326; -.

R EMBL; S65135; G442327.

R EMBL; S66181; G455782; -.

R PIR; S37807; S37807.

R PIR; S37807; S48227.

R GCRDB; GCR_0429; -.

R GCRDB; GCR_0493; -.

R GCRDB; GCR_0634; -.

R GCRDB; GCR_07037; G_PROTEIN_RECEPTOR.

R PROSITE; PS00237; G_PROTEIN_RECEPTOR.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PHOSPHORYLATION; 1
DOMAIN 1
TRANSMEM 46
DOMAIN 76
DOMAIN 10
TRANSMEM 105
DOMAIN 115
DOMAIN 125
DOMAIN 125
TRANSMEM 125
TRANSMEM 262
DOMAIN 262

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LIPID
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ALKORIA I., LOEW G.H.;
PROTEIN ENG. 9:573-583 (1996).

-I- FUNCTION: INHIBITS NEUROTRANSMITTER RELEASE BY REDUCING CALCIUM
-I- FUNCTION: INHIBITS NEUROTRANSMITTER RELEASE BY REDUCING CALCIUM
-ION CURRENTS AND INCREASING POTASSIUM ION CONDUCTANCE. HIGHLY
STEREOSELECTIVE. RECEPTOR FOR ENKEPHALINS.
-I- TISSUE SPECIFICITY: BRAIN, WITH HIGH CONCENTRATIONS IN THE BASAL
GANGLIA AND LIMBIC REGIONS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE
                                                                                                                                                                            236
                                                                                                                                                                                                                                                                    177
  355
                                              343
                                                                                       296
                                                                                                                                                                                                                                                                                                               167
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                                                                                                                                                                                                                                                                                                                                                                                                     107
                                                                                                                                                                                                                                                                                                                                                                                                                                                57
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     47 alaiaitalysavcavgllgnvlvmfgivrytklktatniyifnlaladalatstlpfqs
  QSTNRVRNT 363
                                                                                                                | Liniciwvlasgvgvpimvmavtqprdga-vv-cmlqfpsp--swywdtvtkicvflfaf
                                                                                                                                                                                                                                                                                                                                                                                                  akylmetwpfgellckavlsidyynmftsiftltmmsvdryiavchpvkaldfrtpakak
                                         gslrrprqa
                                                                                                                                                                              VIPVLITIVCYTLMILRLKSVRLLSGSREKDRNLRRITKLVLVVVAVFIICWTPIHIFIL
                                                                                                                                                                                                                                                                    TINICIWLLASSYGISAIVLGGTKVREDVDVIECSLQFPDDEYSW-WDLFMKICVFVFAF
                                                                                                                                                                                                                                                                                                                                                           AVYLMNSWPFGDYLCKIVISIDYYNMFTSIFTLTMMSVDRYIAYCHPVKALDFRTPLKAK
                                                                                                                                                                                                                                                                                                                                                                                                                                                AIPVIITAVYSVVFVVGLVGNSLVMFVIIRYTKMKTATNIYIFNLALADALVTTTMPFQS
                                                                                         VEALGSTSHSTA-ALSSYYFCIALGYTNSSLNPVLYAFLDENFKRCFRDFCFPIKMRMER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      333
372 )
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
                                              351
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LIPOPROTEIN;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  56.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           40561
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 51;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 1597; DB 7;
Pred. No. 8.56e-287;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    POTENTIAL.
BY SIMILAR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             7 (POTENTIAL).
CYTOPLASMIC (POTENTIAL).
POTENTIAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2 (POTENTIAL).

EXTRACELLULAR (POTENTIAL).

3 (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               BY SIMILARITY PALMITATE (PO)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          5 (POTENTIAL)
CYTOPLASMIC (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CYTOPLASMIC |
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   EXTRACELLULAR (POTENTIAL)
5 (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CYTOPLASMIC
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1 (POTENTIAL).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NIMITATE (POTENTIAL).
514022F5 CRC32;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  G-PROTEIN COUPLED RECEPTORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (POTENTIAL).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     46;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 372;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   6
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MIYATA T., I
FEBS LETT. I
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 OPRX_RAT STANDARD; PRT; 367 AA. 253370; O1-JUN-1994 (REL. 29, CREATED) O1-JUN-1994 (REL. 29, LAST SEQUENCE UPDATE) O1-FEB-1996 (REL. 33, LAST ANNOTATION UPDATE)
                                      -!- TISSUE SPECIFICITY: HIGHLY EXPRESSED IN SEVERAL BRAIN AREAS.
-!- SUBCELLULAR LOCATION: INTEGRAL MEMBRANE PROTEIN.
-!- SIMILARITY: BELONGS TO FAMILY 1 OF G-PROTEIN COUPLED RECEPTO EMBL; D16438; G553355; -.
EMBL; U01913; G451844; -.
EMBL; U01913; G467965; -.
EMBL; U01913; G467965; -.
EMBL; U07871; G606803; -.
EMBL; L33916; G557200; -.
EMBL; L33916; G557200; -.
EMBL; L33916; G557200; -.
EMBL; L29419; G510719; -.
EMBL; S46238; S46638.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MEDLINE; 94298959. IM-
WANG J.B., JOHNSON P.S., IM-
EPPLER C.M., UHL G.R.;
FEBS LETT, 348:75-79(1994).
                                                                                                                                                                                                                                                                                                                      MEDLINE; 95182817.

WICK M.J., MINNERATH S.R., LIN X., ELDE R.P., LAW P.Y., LOH H.H.; BRAIN RES. MOL. BRAIN RES. 27:37-44(1994).

-i- function: Opiod receptor with a potential role in modulating number of brain functions, including instinctive behaviours a remotions. The activity of this receptor is mediated by G Protundict inhibits adenvily Cyclase.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MEDLINE; 94307400.
CHEN Y., FAN Y., LIU J., MEST
FEBS LETT. 347:279-283(1994).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 BUNZOW J.R., SAEZ C., GRANDY D.K.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STRAIN=SPRAGUE-DAWLEY; MEDLINE; 94307401.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A.
TISSUE-HIPPOCAMPUS;
MENG F., XIE G., ALFRED M.,
AKIL H.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           [1]
SEQUENCE FROM N.A.
------TISTAR; TISSUE=BRAIN;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           EUKARYOTA; METAZOA;
EUTHERIA; RODENTIA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PROBABLE OPIOID RECEPTOR (ROR-C) (XOR1).
RATTUS NORVEGICUS (RAT).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A. STRAIN=SPRAGUE-DAWLEY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MEDLINE; 95096849
LACHOWICZ J.E., SI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TISSUE-BRAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SSUE=BRF
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (JAN-1994)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          KATO S., MORI K., NIS
HOUTANI T., SUGIMOTO
343:42-46(1994).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            347:284-288(1994)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    E., SHEN Y., MONSMA F.J.,
M. 64:34-40(1995).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CHORDATA; VERTEBRATA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ö
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TISSUE-BRAIN;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          EMBL/GENBANK/DDBJ DATA BANKS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     IMAI Y.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MESTEK A.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   THOMPSON R.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NISHI
OTO T.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       BOUVIER C., WILLIAMS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PERSICO A.M.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Υ.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     .
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                                                                                                                                                                                                                                                          COUPLED RECEPTORS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         J.T., LOW
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G-PROTEIN COUPLED RECEPTOR;

LIPOPROTEIN;

PALMITATE

; G_PROTEIN_RECEPTOR.

TRANSMEMBRANE; GLYCOPROTEIN;

GCRDB; GCR_0912; PROSITE; PS00237;

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RESULT
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Best Local Similarity
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                                                                                                                           01-JUN-1994
01-JUN-1994
01-FEB-1996
                                                                                                                                                                        OPRX_MOUSE P35377;
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CONFLICT
CONFLICT
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CONFLICT
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CARBOHYD
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DOMAIN
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DOMAIN
SEQUENCE FROM N.A.
STRAIN=C57BL/5N; TISSUE=BRAIN;
                                                                                                              PROBABLE
                                               EUTHERIA;
                                                             EUKARYOTA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DISULFID
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                                               MUSCULUS (MOUSE)
ARYOTA; METAZOA;
HERIA; RODENTIA.
                                                                                                                                                                                                                                                                                                                                                           iflfsfiipvliisvcyslmirrlrgvrllsgsrekdrnlrritrlvlvvvavfvgcwtp
                                                                                                                                                                                                                                                   MRMERQSTNRVRNTVQD
                                                                                                                                                                                                                                                                                Lhremqvsdrvrsiakd
                                                                                                                                                                                                                                                                                                                                    vgvfvlvgglgvgpgsetavailrfctalgyvnsclnpilyafldenfkacfrkfccass
                                                                                                                                                                                                                                                                                                                                                                                                                                    TPLKAKIINICIWLLASSVGISAIVLGGTKVREDVDVIECSLQFPD-DEYSWWDLFMKIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                              tsskaqavnvaiwalasvvgvpvaimgsaqv-edee-ieclveipapqdy-wgpvfa-ic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  IMPFQSAVYLMNSWPFGDVLCKIVISIDYYNMFISIFTLIMMSVDRYIAVCHPVKALDFR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SAHISPAIPVIITAVYSVVFVVGLVGNSLVMFVIIRYTKMKTATNIXIFNLALADALVTT 110
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 IHIFILYEALGSTSHSTAALSSYYFCIALGYTNSSLNPVLYAFIDENFKRCFRDFCFPIK 349
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                188;
                                                                                                         994 (REL. 29, CREATED)
994 (REL. 29, LAST SEQUENCE UPDATE)
996 (REL. 33, LAST ANNOTATION UPDATE)
OPIOID RECEPTOR (ORGC).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AA;
                                                                                                                                                                                     STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           59.3%;
                                                   CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            40523
                                                                                                                                                                                                                                                   366
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ₩;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Pred.
63; 1
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Pred. No. 1.36e-261;
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G -> R (IN

L -> V (IN

S -> P (IN

S -> T (IN
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EXTRACELLULAR (POTENTIAL)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CYTOPLASMIC
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                                                                                                                                                                                     PRT;
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                                                                                                                                                                                     367
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        REF. 2).
REF. 2).
REF. 2).
CRC32;
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MEDLINE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WHICH INHIBITS ADENUTY THIS MECEPTOR IS MEDIA
-!- SUBCELLULAR LOCATION: INTEGRAL MEMBRANE PROTEIN.
-!- SIMILARITY: BELONGS TO FAMILY 1 OF G-PROTEIN COULEMEL; U04952; G440880; -.
EMBL; U04952; G440880; -.
EMBL; D31667; G808874; -.
EMBL; D31666; G808874; JOINED.
EMBL; D31665; G808874; JOINED.
EMBL; U14165; G5400892; -.
EMBL; U14165; G5400893; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CDS
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HALFORD W.P., GEBHARDT B.M., CARR D.J.J.;
SUBMITTED (AUG-1994) TO EMBL/GENBANK/DDBJ DATA BANKS.

-I- FUNCTION: OPIOD RECEPTOR WITH A POTENTIAL ROLE IN MODULATING NUMBER OF BRAIN FUNCTIONS, INCLUDING INSTINCTIVE BEHAVIOURS A EMOTIONS. THE ACTIVITY OF THIS RECEPTOR IS MEDIATED BY G PROT
  polyA_site
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PROSITE; PS00237; G_PROTEIN_RECEPTOR. G-PROTEIN COUPLED RECEPTOR; TRANSMEME
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A.
MEDLINE; 95100967.
NISHI M., TAKESHIMA H.,
BIOCHEM. BIOCHYS. RES. (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           YASUDA K., JONES E., SUBMITTED (JAN-1994) [2]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          STRAIN=SPRAGUE-DAWLEY; MATTHES H.W.D.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE OF 1-357 FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SUBMITTED
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE
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1 (bases 1 to 3081)
Youssoufian, H., McAfee, M. and
Cloning and chromosomal locali
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Loning and chromosomal localization of the lipha-actinin gene reveals linkage to the J. Hum. Genet. 47 (1), 62-71 (1990)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (SEP-1995)
                                                                /Godon_start=1
//Godon_start=1
//Godon_start=1
//Godon_start=1
//Godon_start=1
//Godon_start=1
//Godon_start=1
//Godon_start=1
//Godon_start=1
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//Godon="Alpha-actinin"
//God
VDPNIALGYVITQAFIDEMSRETADTDTADQVVAASEKILAGDKNYITMDELRRELPPDQ
AEYCIARMAPYTGPDSVPGALDYMSFSTALYGESDL"
3081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /isolate="p5aA"
/cell_type="endothelial
/tissue_type="umbilical
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /gene="ACTN1"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    map="14q24.1-q24.2"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /organism="Homo sapiens"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       mitochondrial eukaryotes; Metazoa; Chordata;
Eutheria; Primates; Catarrhini; Hominidae; F
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TO
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TO EMBL/GENBANK/DDBJ DATA BANKS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TISSUE-BRAIN;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMMUN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EMBL/GENBANK/DDBJ
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COMMUN. 205:1353-1357(1994).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TRANSMEMBRANE; GLYCOPROTEIN;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Kwiatkowski,D.J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               cell"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DATA BANKS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COUPLED RECEPTORS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               mRNA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            G PROTEINS
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ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SOURCE
ORGANISM
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ACCESSION
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Best Local S
Matches 3
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JOURNAL
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                                                      exon
                                                                                                                                                        exon
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 intron
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Chlamydomonas reinhardtii ARG7 gene for argininosuccinate lyase.
X16619

g18111

ARG7 gene; argininosuccinate lyase.
Chlamydomonas reinhardtii.
Chlamydomonas reinhardtii
Eukaryotae; mitochondrial eukaryotes; Viridiplantae; Chlorophytae
Chlorophyceae; Volvocales; Chlamydomonadaceae; Chlamydomonas.
1 (bases 1 to 8670)
1 (bases 1 to 8670)
2 and Rochaix, J.D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Debuchy,R., Purton,S. and Rochaix,J.D.

The argininosuccinate lyase gene of Chlamydomonas important tool for nuclear transformation and for genetic and molecular maps of the ARG7 locus EMBO J. 8 (10), 2803-2809 (1989)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Direct Submission Submitted (18-DEC-1990) Department of Biology, University College London, Darwin Building, Gower Street, london WCIE 6BT, U.K
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Purton,S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      h 2.3%;
Similarity 84.2%;
32; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0059861
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (bases 1 to 8670)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /gene="ACTN1"
/note="G00-125-187"
&880 c 857 g
 /number=2
2654..2917
                                                  /gene="ARG7"
/number=1
2526..2653
                                                                                                                                                                                                                                                                          QFIAKELGFGGGVCPNSMDAVSDRDFVIETVFÄASLLCVHLSRWAEDLIIYSSGPFGY
VQCSDAYATGSSLMPQKKNPDALELIRGKGGRVQGNLMGVMAVLKGTPTTYNKDFQEC
WELLFDTVDTVHDVVRLATGVLSTLRIKPDRMKAGLSADMLATDLAEYLVRKGVPFRE
                                                                                                                                                                                                                                                                                                                         /translation="misaapadntkklwggretgktdplmekeneslpedkrlwaedi
Kgsoaxakalakagilahderviivegjakvabewkacafvikagdedhthanerli
Elvcavggklhtggrskngvaldyrlwikgscymksevgelwrvaadreabvevlu
PGfthlqnamivrwshwimshaaawqrddmrlrdllprvatipicsgalagnpfivdr
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/Clone_lib="lambda EMBL3"
/Clone_lib="lambda EMBL3"
/Clone_lib="lambda EMBL3"
/Clone_lib="lambda EMBL3"
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/200..4320,4617..679,7878..7983,8393..8512)
/EC_number="4.3.2.1"
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4200..4320,4617..4751,5256..5350,5932..6125,6617..6704,
7089..7197.7595..7679,7878..7983,8393..8509)
                                                                                                                                                                                                                                        THHHSGAAVKMAEDRGCTLFDLTVDDLKTIHPLFTDDVAAVWDFNRSAEMRDTEGGTS
KRSVLEQVQKMRTYLAAEGQH"
                                                                                                                                                                                                                                                                                                                                                                                          /product="argininosuccinate lyase"
/db_xref="pID:g18112"
/db_xref="SWISS-PROT:P22675"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /organism="Chlamydomonas reinhardtii"
/strain="CW15"
                                                                                                         1978.
                                                                                                                                                      /gene="ARG7'
1971..1977
                                                                                                                                                                                                                                                                                                                                                                                                                                            /codon_start=1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /dev_stage="vegetative cells"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               location/Qualifiers
                                   /gene="ARG7"
                                                                                                                                      /gene="ARG7"
                                                                                                                       'number=1
                                                                                                     ..2525
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 26; DB 75; Le
Pred. No. 8.37e-02;
0; Mismatches 6;
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CT
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Query Match
2.3%; Score 26; DB 58;
Best Local Similarity 74.1%; Pred. No. 8.37e-02;
Matches 40; Conser; Sequence 1, Application US,
GENERAL INFORMATION:
APPLICANT: DE FRANCESCO, Raffaele
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REPEICANT: PALLA, Cristina
REPLICANT: PALLA, Cristina
REPLICANT: POMET. Licia
TITLE OF INVENTION: METROD FOR REPRODUCING IN VITRO THE
TITLE OF INVENTION: METROD FOR REPRODUCING IN VITRO THE
TITLE OF INVENTION: METROD FOR REPRODUCING IN VITRO THE
TITLE OF INVENTION: METROD FOR REPRODUCING IN VITRO THE
TITLE OF INVENTION: METROD FOR REPRODUCING IN VITRO THE
TITLE OF INVENTION: METADOL TO THE NSS HEPATITIS C VIRUS
NUMBER OF SEQUENCES:

ADDRESSER: BROWDY AND NEIMARK, P.L.C.

STREET: 419 Seventh Street, N.W., Suite 300
CITY: Washington

MEDIUM TYPE: 419 Seventh Street, N.W., Suite 300
CITY: Washington

MEDIUM TYPE: Floppy disk
MEDIUM TYPE: D.C.
COUNTER: USA
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC COMPATIBLE
D.C.
COUNTER: USA
MEDIUM TYPE: Floppy disk
COMPUTER: 1BM PC COMPATIBLE
D.C.
COUNTER: USA
MEDIUM TYPE: Floppy disk
COMPUTER: 1BM PC COMPATIBLE
D.C.
COUNTER: USA
MEDIUM TYPE: JOSEM: PC-DOS/MS-DOS
OPERATING SUSTEM: PC-DOS/MS-DOS
OPERATING APPLICATION DATE
DEPOSITION NUMBER: 25.618
REFERENCE/DOCKET NUMBER: DE FRANCESCO-1
TILEPHONE: 202-68-5197
TILEPHONE: SISIPE
OPERATION: MINERAL 25.618
TILEPHONE: 202-68-5197
TILEPHONE: 202-68-
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STWVLVGGVLAALAAYCLTTGSVVIVGRIILSGRPAIVPDRELLYQEFDEMEEC1
                      ; TOPOLOGY: li; MOLECULE TYPE: US-08-700-356-2
                                                                                                                                                                                                                                                Sequence 2, Application US/08700356
GENERAL INFORMATION:
APPLICANT: DE FRANCESCO, Raffaele
APPLICANT: FAILLA, Cristina
APPLICANT: TOMEI, Licia
TITLE OF INVENTION: METHOD FOR REPRODUCING IN VITRO
TITLE OF INVENTION: PROTECLYTIC ACTIVITY OF THE NS3
NUMBER OF SEQUENCES: 3
                                                                                                                 TELEFAX: 202-737-3528
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
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CORRESPONDENCE ADDRESS:
ADDRESSEE: BROWDY AND NEIMARK, P.L.L.C.
ADDRESSEE: BROWDY AND NEIMARK, P.L.L.C.
ATTEMPT. 419 Seventh Street, N.W., Suite
                                                                                                                                                     TELECOMMUNICATION INFORMATION: TELEPHONE: 202-628-5197
TELEFAX: 202-737-3528
                                                                                                                                                                                                     ATTORNEY/AGENT INFORMATION:
NAME: BROWDY, Roger L.
REGISTRATION NUMBER: 25,6
REFERENCE/DOCKET NUMBER:
                                                                  LENGTH: 54 amino acids
TYPE: amino acid
STRANDEDNESS: single
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ER: DE
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Sequence 3. Application US/08700355

(SENERAL INFORMATION:
APPLICANY: PAILA, Cristina
APPLICANY: FAILA, Cristina
APPLICANY: TOMEL Licia

APPLICANY: TOMEL Licia

APPLICANY: TOMEL DEFRANCESC:
APPLICANY: TOMEL PROPERTY:

ITILE OF INVENTION: METHOD FOR REPRODUCTING IN VITRO THE

ITILE OF INVENTION: METHOD FOR REPRODUCTING IN SHEATITIS C VIRUS (HCV)

NUMBER OF SEQUENCES: 3

COMPTEE READABLE FORM:

MEDITY MITTE: PROPERTY AND METANARY, P.L.L.C.

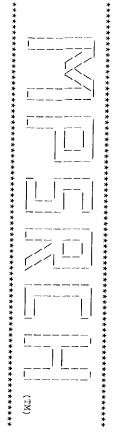
COUNTER: USA

COMPTEE READABLE FORM:

MEDITY MITTE: PLOPY disk
COMPTEER READABLE FORM:

MARK: PROPERTY MITTER: PROPERTY SET AND ASSOCIATION:

MARK: PROP
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Release 2.1D John F. Collins, Biocomputing Research Unit. Copyright (c) 1993, 1994, 1995 University of Edinburgh, U.K. Distribution rights by IntelliGenetics, Inc.

MPsrch_pp protein - protein database search, using Smith-Waterman algorithm

Tabular output Run on: not generated. Tue Aug 26 14:43:42 1997; Masbar time 9.43 Seconds 460.872 Million cell updates/sec

Description: Perfect Score

Sequence: Score: >US-08-292-694A-2 (1-380) from US08292694A.pep 2839 1 MESPIQIFRGDPGPTCSPSA.....RNTVQDPASMRDVGGMNKPV 380

Scoring table: PAM 150 Gap 11

Searched: 96640 seqs, 11439865 residues

Post-processing:

Minimum Match 0% Listing first 45 summaries

Database:

a-geneseq27
1:part1 2:part2 3:part3 4:part4 5:part5 6:part6 7:part7
8:part8 9:part9 10:part10 11:part11 12:part12 13:part13
14:part14 15:part15 16:part16 17:part17 18:part18
19:part19 20:part20

Statistics:

Mean

34.629;

Variance 152.210;

scale 0.228

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result	Score	Query Match	Length	₽B	ID	Description	Pred. No.
	2839	100.0	80	13	R67669	Mouse kappa opioid re	ו ת
ν.	2829	99.6	0	14	67	appa opiate rec	25
ω	2823	S	08	14	N	alian kappa opio	986-25
4	2746	a		17	872	na opioid r	016-25
ហ	2130	75.0	295	12	767	kappa opioid r	570-1
0	1683	w		H	18	e mu-subtype op	48e-14
7	1677	9		13	10	9 9 9	.86e-1
α	1676	9		14	R76781	നം	51
ر د د	16/4	59.0	398	13	R71964		ú
T C	16/5	9		14	~ 1		.4.
Ξ	1610	0		4	R76782		. 016
, L	1597			3	7	ta opioid r	. 646
· L	1597	.0		9	R48629	murine d	.646
14	1499			10	R66503	lta opioid	. 126
F 5	1473			13	Q	eceptor.	68
<u>ا</u> ا	1471			ω	R67671	Mouse opioid receptor	63e
1	1464			4	R76638	niorph r	.25e-12
μœ	1195	ν.		ω	Q	Mouse kappa-3 opioid	.18e-10
12 12	086	4		7		e somatostatin	308-80
20	976	34.4		7		somatostatin r	.28e-7

Query Match

Best Local Similarity 100.0%;

Matches 380; Conservative

Score 2839; DB 13; Length 380; Pred. No. 1.63e-260; O; Mismatches 0; Indels 0

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Gaps

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3.14e-39	.33e-3	.37e-4	.24e-4	. 21e-4	1	1.0-4	060-4	08e-4	70e-4	700-4	.41e-4	.41e-4	.16e-4	.16e-4	.50e-4	.30e-5	.65e-6	.02e-6	.95e-6	.95e-6	.40e-6	.91e-7	.70e-7	1.70e-73	0000

ALIGNMENTS

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30-JAN-1994; US-188275.
28-JAN-1994; US-188275.
(USSH) US SEC DEPT HEALTH & HUM.
(USSH) US SEC DEPT HEALTH.
Johnson PS, Persico AM, Uh
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  cpds. for activity as opiate agonists or antagonists Disclosure; Page 29-30; 49pp; English.

hMOR cDNA was obtd. from a human cerebral cortical cDNA library screened with fragments of a rat mu opiate receptor. The encoded protein showed homology to rat mu, delta and kappa opiate receptors (R76781-83).

Sequence 380 AA;
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Kappa opiate receptor; mu optiate receptor; opiate antagonist; drug abuse; analgesic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WPI; 95-275452/36.
New DNA encoding human mu opiate receptor - used
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No. 1.55e-259;
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Claim 2; Page 9-10; 15pp; Japanese.
The amino acid sequence of the novel mammalian kappa opioid receptor.
The amino acid sequence of the novel mammalian kappa opioid receptor.
The gene was isolated by amplifying a fragment from rat brain mRNA by reverse transcriptase-PCR (RT-PCR) using primers Q86726-7 derived from the mouse delta-opioid receptor gene. This fragment was cloned into the plasmid pCRII to produce pR11. The plasmid pR11 was used to probe a rat brain DNA library in lambda ZAPII. The obtain a clone of the rat kappa opioid receptor gene, designated pKOPR2. This clone was introduced into E.coli JM109 for production of the receptor protein. The receptor protein is useful for screening of analgesic and hypnotic compounds including
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J07070191-2
14-MAR-1995
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Mammalian kappa opioid receptor; mouse delta opioid receptor; analgesic; amplification; primer; rat; probe; E.coll; RT-PCR; hypnotic compound; ds
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(TAKE ) TAKEDA CHEM
WPI; 95-144857/19.
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Pred. No. 5.98e-259;
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11-JUL-1994; FR-008531.
(UXST-) UNIV PASIEUR STR
Kieffer B, Simonin F;
WPI; 96-097628/10.
N-PSDB; T12550.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                     probe. Nucleotide probes derived from the kappa opioid recoding sequence are useful for diagnosis of neurological, vascular and psychiatric disorders associated with opioid receptors. The receptor can be used for identifying e.g. a of its activity for potential use as analgesics. Sequence 380 AA;
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Human kappa opioid receptor,
Human kappa opioid receptor;
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Similarity 93.7%;
356; Conservative
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Pred. No. 2.01e-251;
18; Mismatches 6;
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Staim 12; Page 236-239; 300pp; English.

The partial amino acid sequence of the novel human kappa opioid receptor. The correspoding gene was isolated from a human brain hippocampus cDNA library using a probe from the mouse kappa opioid receptor gene (Q75926). The gene is missing the N-terminal sequence. The C-terminal sequence is crery similar to the mouse kappa opioid receptor sequence of the C-terminal 293 amino acids, 281 residues are identical and 6 residues have conservative substitutions. The gene encoding the human opioid receptor can be placed in a suitable expression vector for production of the grotein in a cell. The opioid receptors thus produced are useful for the development of novel assays designed to select or improve substances, capable of interacting with the opioid receptor proteins, for use in sequence 295 AA;
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Best Local :
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08-DEC-1994.
20-MAY-1994;
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R67672 standard; 1
R67672;
18-AUG-1995 (firs
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Mouse; kappa; delta; mu; opioid receptor; brain; primer; PCR; amplify;
transmembrane domain; somatostatin; receptor; human; expression vector;
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05-NOV-1993;
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Misc_difference 265
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273; Conservative
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; US-147592.
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1. no. 2.57e-8;
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Best Local S
Matches 21
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R65188;
19-APR-1995
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Modified_site 230
"Threonine residue"
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R65188 is the rat mu-subtype opioid receptor protein purified from rat brain membranes, with biotiny1-b-endorphin (R56666) as its ligand. It is encoded by the nucleotide sequence Q79199 which was synthesised using Q71022 and Q71023 as PCR primers. R65188 is useful for identifying othe receptor subtypes, for screening new opioid ligands, and for studying mechanisms of opioid action, e.g. drug addiction.

Sequence 356 AA;
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26-FEB-1993; US-026140.
(AMCY) AMERICAN CYANAMID
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EP-612845-A.
31-AUG-1994.
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ilarity 62.8%;
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Best Local
03-AUG-1995.
30-JAM-1995; U01144.
28-JAM-1994; US-188275.
(USSH ) US DEPT HEALTH & HUM
(USSH ) US SEC DEPT HEALTH.
JOhnson PS, Persico AM, Uh
WPI; 95-275452/36.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     New nucleic acid encoding new human mu opioid receptor - and related vectors, transformed cells, antibodies etc., useful in diagnosis, treatment and drug screening.

Claim 4; Page 211-214; 266pp; English.

A cDNA library constructed from human caudate nucleus mRNA was screened with rat mu opioid receptor cDNA under conditions of low stringency. One positive clone included the sequence given 089225, encoding a mu opioid receptor MOR (R71964). The cDNA is used for prodm. of recombinant MOR, in gene therapy, etc. sequence 400 AA;
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W09507983-A.
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Human mu opioid receptor.
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13-SEP-1993; US-120601
(INDV ) UNIV INDIANA F
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W09520667-A1.
                                                                                                                                                                                                                drug abuse; analgesic.
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Matches 20
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New nucleic acid encoding new human mu opioid receptor - and related vectors, transformed cells, antibodies etc., useful in diagnosis, treatment and drug screening.

Disclosure; Page 190-194; 265pp; English.

A 365 bp fragment of the mouse delta opioid receptor was used to screen a rat brain cDNA library under low stringency conditions. One positive clone included the sequence given in 089222, encoding mu opioid receptor, MOR-1 (R71964). MOR-1 was stably expressed in transfected CHO cells.
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13-SEP-1993;
(INDV ) UNIV
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WPI;
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R71964;
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hMOR cDNA was obtd. from a human cerebral cortical cDNA library screened with fragments of a rat mu opiate receptor. The encoding protein showed homology to rat mu, delta and kappa opiate receptors (R76781-83).

Sequence 398 AA;
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opioid receptor; MOR-1; gene therapy; diagnostic.
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Pred. No. 5.5
54; Mismatch
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Pred. No. 3.57e-147;
53; Mismatches 50;
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(USSH) US SEC DEPT HEALTH.
Johnson PS, Persico AM, Uh
WPI; 95-275452/36
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/note= "N-linked glycos
Modified_site 11
/label= Glycosylation
            opds. for activity as opiate agonists or antagonists Claim 1; Page 25-26; 49pp; English.

hMOR cDNA was obtd. from a human cerebral cortical coscreened with fragments of a rat mu opiate receptor, of hMORI in COS cells revealed high affinity recohnit
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Modified_site 32
/label= Glycosylation
/note= "N-linked glycosylation
/ note= "N-inked glycosylation
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Domain
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W09520667-A1.
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11-DEC-1995
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68..87
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Best Local
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11-DEC-1995 (first entry)
Rat delta opiate receptor.
Delta opiate receptor; mu optiate receptor;
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                                                                                                                                                                                                                                                                                                                                                                                                                 New DNA encoding human mu opiate receptor - used esp. for screening cpds. for activity as opiate agonists or antagonists Disclosure; Page 28-29, 49pp; English.

MNOR DNA was obtd. from a human cerebral cortical cDNA library screened with fragments of a rat mu opiate receptor. The encoded protein showed homology to rat mu, delta and kappa opiate receptors (R76781-83).

Sequence 372 AA;
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30-JAN-1995; U01144.
28-JAN-1994; US-188275.
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W09520667-A1.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ylmgtwpfgtilckivisidyynmftsiftlctmsvdryiavchpvkaldfrtprnakii 189
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95-275452/36.
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                                mftsiftltmmsvdryiavchpvkaldfrtpakakliniciwvlasgvgvpimvmavtqp 191
                                                                                                                                                                                                       LLPNSSSWFPNWAESDSNGSVGSEDQQLESAHISPAIPVIITAVYSVVFVVGLVGNSLVM 81
                                                                                                         FYIIRYTKMKTATNIYIFNLALADALYTTMPFQSAVYLMNSWPFGDVLCKIVISIDYYN
                                                                                                                                    specific ligand. Recombinant hMOR1 can nds for analgesic activity.
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. Similarity 66.6%;
207; Conservative
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Pred. No. 4.47e-147;
52; Mismatches 49;
                                                                                                                                                                                                                                                                                                                Score 1610; DB 14;
Pred. No. 9.01e-141;
55; Mismatches 48;
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30-JUL-1993; US-100594.
05-NOV-1993; US-147592.
(ARCH-) ARCH DEV CORP.
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Bell 95-022804/03.
N-PSDB; Q75927
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R67670 stand
R67670;
17-AUG-1995
                                                                                                                                                                                                                                                                                                                                second and third transmembrane domains of somatostatin (SRIF) receptor subtypes SSTR1, SSTR2 and SSTR3. The 1.3 kb EccRI-SacI fragment from the mouse delta opicid receptor clone, lambda ms1-2, was subcloned into the CMV promoter-based expression vector pcMV-6c. The resultant construct pcMV-ms1-2 was transfected into COS-1 cells for protein production. The gene encoding the opicid receptor can be used to produce complete, truncated or chimaeric opicid receptor proteins. The opicid receptors thus produced are useful for the development of novel assays designed to select or improve substances, capable of interacting with the opicid receptor proteins, for use in diagnosis, drug design and therapeutic applications.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            polymucleotides and peptides derived from opioid receptor polymeptides - for use in therapeutic compositions and in screening assays for useful drug substances.

Claim 5, Page 215-221; 300pp; English.

The amino acid sequence of the novel mouse delta opioid receptor mORD1. The corresponding gene was isolated from a mouse brain cDNA library using a fragment (amplified from the cDNA library with primers Q75929-30) as a probe. The primers are based on the conserved sequences present in the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Mouse delta opioid receptor mORD1.

Mouse; kappa; delta; mu; opioid receptor; brain; primer; PCR; amplify; transmembrane domain; somatostatin; receptor; human; expression vector
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20-MAY-1994; U05747.
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Pred. No. 1.64e-139;
51; Mismatches 46;
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                                                                                                                                                                                                                                                                                                                         DAN encoding opioid receptors and antibodies against this receptor - used to express and locate these receptors, and screen opds. for opioid (ant)agonist activity

Sclaim 10; Fig 5; 74pp; English.

A cDNA library was constructed using mRNA isolated from the NG109-15 cell line. A single clone, named the DOR-1 clone was isolated. Comparisons with known sequences in GenBank showed highest homology between DOR-1 and the G-protein-coupled somatostatin receptor. Other features of the DOR-1 clone AA sequence deduced from the CDNA sequence include 3 consensus glycosylation sites at residues 18 and residue 310 (close to the C-terminus and predicted to be in the extracellular N-terminal domain), and at intracellular Densphokinase C consensus sites are present within predicted intracellular domains, at residues 242,255, 344 & 352.

Seven putative membrane-spanning regions were identified. The DOR-1 called produces a delta receptor with a predicted mot. wt. of 40,558 Sequence 372 AA;
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Best Local
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13-AUG-1993;
13-AUG-1992;
(REGC ) UNIV
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(REGC ) UNIV CALIFORNIA.
Edwards RH, Evans CJ,
WPI; 94-083099/10.
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Pred. No. 1.64e-139;
51; Mismatches 46;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Claim 8; Page 19-20; 29pp; French.

A cDNA bank constructed from hybridoma NG108-15, was used to transfect COS-1 cells. The cells were tested for ability to bind tritium-labelled Tyr-D-Thr-Gly-Phe-Leu-Thr, in the presence or absence of the opioid antagonist naloxone. Clone K56 was isolated from a positive colony and found to contain a 2216bp insert. This CDNA encodes a delta opioid (enkephalin) receptor with apparent dissociation constant 1.4nM and Bmax 3.9-6.4 pmole/mg protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  polypeptide, antisense and ligands, useful in neurological disorders
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                New nucleic acid encoding opioid receptor - and related polypeptide, antisense nucleic acid, probes, recombinan and ligands, useful in diagnosis and treatment of e.g.
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10-NOV-1992;
10-NOV-1992;
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Murine delta
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llarity 64.9%;
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356 STNRVRNT 363

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DR WPI; 95-131351/17.

DR WPI; 95-131351/17.

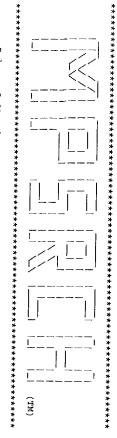
DR N-SSDB; Q89233.

PT New nucleic acid encoding new human mu opioid receptor - and pri related vectors, transformed cells, antibodies etc., useful in pri diagnosis, treatment and drug screening.

PS Example 9; Page 218-22; 266pp; English.

CC The cDNA given in Q89233 was isolated from a rat brain library by CC low stringency hybridization with rat mu opioid receptor cDNA CC (Q89222). The clone encoded a 367-amino acid protein (R71968) CC that showed high homology with mu, kappa and delta opioid receptors but lacked affinity for their ligands, suggesting it to be Sequence 367 AA;
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Best Local Similarity 59.3%;
Matches 188; Conservative
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R71968 standard; Protein; 367
R71968;
20-OCT-1995 (first entry)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            23-MAR-1995.
13-SEP-1994; U10358.
13-SEP-1993; US-120601.
(INDEP-1993; US-120601.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Rat opioid receptor
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350 MRMERQSTNRVRNTVQD 366
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                                                                                                                                                                TPLKAKIINICIWLLASSVGISAIVLGGTKVREDVDVIECSLQFPD-DEYSWWDLFMKIC
                                                                                                                                                                                                                                                                                                                                Score 1473; DB 13;
Pred. No. 1.68e-127;
63; Mismatches 61;
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Search completed: Tue Aug 26 14:44:16 1997 Job time: 34 secs.



Release 2.1D John F. Collins, Biocomputing Research Unit. Copyright (c) 1993, 1994, 1995 University of Edinburgh, U.K. Distribution rights by IntelliGenetics, Inc.

MPsrch_pp protein - protein database search, using Smith-Waterman algorithm

Tabular output not generated. Tue Aug 26 14:50:23 1997; MasPar time 18.98 Seconds 578.520 Million cell updates/sec

Description: Perfect Score:

>US-08-292-694A-2 (1-380) from US08292694A.pep 2839 1 MESPIQIFRGDPGPTCSPSA.....RNTVQDPASMRDVGGMNKPV 380

Scoring table: PAM 150 Gap 11

Searched: 91006 seqs, 28888923 residues

Post-processing:

Minimum Match 0% Listing first 45 summaries

Database:

1:ann1 2:ann2 3:ann3 4:ann4 5:unann1 6:unann2 7:unann3 8:unann4 9:unann5 10:unann6 11:unann7 12:unann8 13:unann9 14:unann10 15:unenc 16:unrev

Statistics: Mean 47.869; Variance 123.437; scale 0.388

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

22111111111111111111111111111111111111	Result
2839 28169 28169 28169 27147 2616 2616 2616 2616 2616 2616 2616 261	Score
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mespiqifrgdpgptcspsacllpnssswfpnwaesdsngsvgsedqqlesahispaipv 60	Db 1 mesp Qy 1 MESP
atch cal Simi 380;	Query Match Best Local s Matches 38
<pre>kor brain; G protein-coupled receptor; glycoprotein; opioid peptide; phosphoprotein; transmembrane protein #length 380 #molecular-weight 42652 #checksum 9937</pre>	#gene KEYWORDS
This receptor exists in different areas of the central and peripheral nervous systems, and mediates many physiological and pharmacological effects of opiates and opioid compounds.	COMMENT Thi
ession JC4138 #molecule_type mRNA #residues 1-380 ##label LIU #note The authors translated the codon CAG for residue 365 as	#accession ##molecu ##residu ##note
	#journal #title
tatus olecule_ esidues ross-ref	##status ##residu ##cross- ##cross- REFERENCE
<pre>pal Proc. Natl. Acad. Sci. U.S.A. (1993) 90:6736-6740</pre>	#journal #title #accession
CO.	ACCESSIONS REFERENCE #authors
1 A48227 #type complete kappa opioid receptor 1 - mouse #formal_name Mus musculus #common_name house mouse 26-May-1994 #sequence_revision 26-May-1994 #text_change 27-Oct-1995	RESULT 1 ENTRY TITLE ORGANISM DATE

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S36143
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kappa opioid receptor - rat
#formal_name Rattus norvegicus #common_name
10-Dec-1993 #sequence_revision 19-Oct-1995 #
06-Sep-1996
                                                                                                                                                                                                                                                                                                                                                                   Chen, Y.; Mestek, A.; Liu, J.; Yu, L. Blochem. J. (1993) 295:625-628 Molecular cloning of a rat kappa opioid receptor reveals seguence similarities to the mu and delta opioid receptors.
                                                                                                                                                                           _type mRNA
                                                                                                                                                                                                                      Minami, M.; Toya, T.; Katao, Y.; Maek Onogi, T.; Kaneko, S.; Satoh, M. FEBS Lett. (1993) 329:291-295 Cloning and expression of a cDNA for
                                                                                                                                                                                                                                                                                                                                                                                                                                 S38825
                                                                                    Biochem. J. (1993) 295:629-633
Molecular cloning and expression
                                                                                                                                                                                            receptor.
$36102
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Meng, F.; Xie,
                  A48789
                                                           S39015
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                                                                                                                      ₽.
                                                                         receptor.
                                                                                                                   S.; Zhu, J.; Chen, C.; Chen, .; Liu-Chen, L.Y.
                                                                                                                                                               1-41,'L',43-380 ##label MIN
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Matches 37
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Best Local Similarity 98.9%;
Matches 376; Conservative
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#introns 86/2; 204/1
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##cross-references EMBL:UU0442; NID:g403486; CDS
## #length 380 #molecular-weight 42688
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##residues 1-380 ##label NIS
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l Similarity 99.5%;
378; Conservative
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kappa-opinid receptor mouse
#formal_name Mus musculus #common_name house mouse
21-Feb-1995 #sequence_revision 05-Apr-1995 #text_change
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                                                                                                                                                                                                                                                                               Biochem. Biophys. Res. Commun. (1994) 205:1353-1357 Structure and chromosomal mapping of genes for the
                                                                                                 #length 380
                                                                                                                receptor
                                                                                                                                                                                                                                                                                                                                Nishi, M.; Takeshima,
                                                                                                                                                                                                                                              kappa opioid receptor and an opioid receptor homologue (MOR-C).
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                                                                                                 #molecular-weight 42630
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Pred. No. 0.00e+00;
3; Mismatches 1;
                                Score 2816; DB 14;
Pred. No. 0.00e+00;
0; Mismatches 2;
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                                                                                                                                                                                                                                                                                                                                H.; Mori, M.; Nakagawara, K.;
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**COMMENT
KEYWORDS
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##residues 1-380 ##label 1
##experimental_source placenta
NACE A55354
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This receptor preferentially binds
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                                                                                                          #length
                                                                                                                                                                                                                                                                                                              Wang, J.B.; Johnson, P.S.; Wu, J.M.; Wang, W.F.; Uhl, G.R. J. Biol. Chem. (1994) 269:25966-25969
Human kappa opiate receptor second extracellular loop elevates dynorphin's affinity for human mu/kappa chimeras.
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                                                       96.8%;
larity 93.9%;
Conservative
                                                                                                                                                                                                                                                                                                             A55354
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Biochem. Biophys. Res. Commun. (1994) 202:1431-1437
Isolation of a human kappa opioid receptor cDNA fro
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##molecule_type mRNA
##residues 1-380 ##label RES
##cross-references GB:L37362; NID:g722617;
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Similarity 93.7%;
356; Conservative
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#length 38
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Life Sci. (1995) 56:201-207
Cloning of a human .kappa. (
I57005
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kappa opioid receptor - human
*formal_name Homo sapiens *common_name man
02-Jul-1996 *sequence_revision 02-Jul-1996
02-Jul-1996
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1 Similarity 92.9%;
338; Conservation
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dynorphin receptor
#formal_name Cavia porcellus #common_name guinea pig
06-Feb-1995 #sequence_revision 06-Feb-1995 #text_change
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M.T.; Goldstein, A.; Watson, S.J.; Akil, H.
Proc. Natl. Acad. Sci. U.S.A. (1994) 91:3779-3783
Primary structure and functional expression of a guinea pi
                                                                                        sob693 #type complete
opioid receptor mu variant MORIA - human
#formal_name Homo sapiens #common_name man
12-Jul-1996 #sequence_revision 26-Jul-1996
26-Jul-1996
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submitted to the EMBL Data Library, July expression of two variants of the human \pi mRNA in SK-N-SH cells and human brain.
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                                                                    #journal Proc. Natl. Acad. Sci. U.S.A.
#title Genomic structure analysis of
opioid receptor gene.
#cross-references_MUID:94377496
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                                                                                                                                                                       ##residues 1-398 ##label KAU
##cross-references GB:U19380
                                                                                                                                                                                                         ##molecule_type mRNA
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##residues 1-398 ##label RES 1-398 ##label RES CDS_PID:g565069
                        ##molecule_type DNA
                                           ##status
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Similarity 65.0%;
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                                                                                                                                                                                                                                       J. Biol. Chem. (1995) 270:15877-15883
Characterization of the murine mu opioid
A57510
                                                                                                                                                                                                                                                                                                                                A57510;
A57510
                                                                                                                                                                                                                                                                                                                                                      A57510 #type complete
mu oploid receptor - mouse
#formal_name Mus musculus #common_name house mouse
08-Dec-1995 #sequence_revision 08-Dec-1995 #text_change
15-oct-1996
                                                                                                                                               Min, B.H.; Augustin, L.B.;
                                                                                                                                                                                                                                                                                                                Kaufman, D.L.; Keith Jr.,
                                                           I48665
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                                                                                                                                                                                                                                                                 aufman, D.L.; Keith Jr., D.E.; Anton, 1
Magendzo, K.; Newman, D.; Tran, T.H.;
Xia, Y.R.; Lusis, A.J.; Evans, C.J.
Biol. Chem. (1995) 270:15877-15883
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                                                                                                                                                                                                                          nucleic acid sequence
                                           translated from GB/EMBL/DDBJ
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Pred. No. 1.56e-244;
53; Mismatches 56;
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                                                                                                       promoter sequence
                                                                                                                      (1994) 91:9081-9085
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D.S.; v
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local s
Matches 20
                                                                                                                              #authors Mestek, A.; Hurley, J.H.; Bye, L.S.; Campbell, A.D.; Chen
Y.; Tlan, M.; Liu, J.; Schulman, H.; Yu, L.

#journal J. Neurosci. (1995) 15:2396-2406
The human mu opioid receptor: modulation of functional desensitization by calcium/calmodulin-dependent protein kinase and protein kinase C.

#cross-references MUID:95198115
#accession 156553
         #authors
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#title
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                                ##cross-references GB:L29301; NID:g459831; CDS_PID:g459832
                                                   ##molecule_type mRNA
##residues 1-400 ##label
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##residues 1-398 ##label_
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Similarity 65.8%;
                                                                                                                                                                                                                                                                                                             15553 #type complete
opiate receptor mu - human
MOR1 protein; opioid receptor mu
#formal_name Homo sapiens #common_name man
02_Jul-1996 #sequence_revision 02_Jul-1996 #text_change
06-Sep-1996
   Wang, J.B.;
                        A38991
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I56553
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Antisense mapping the MOR-1 opioid receptor: evidence alternative splicing and a novel morphine-6
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                                                                                             nucleic acid sequence GB/EMBL/DDBJ
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translated
Johnson, P.S.; Persico, A.M.; Hawkins,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 1678; DB 14;
Pred. No. 3.32e-244;
55; Mismatches 49;
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from GB/EMBL/DDBJ
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#map_position 6q24-6q25
KEYWORDS G protein-coupled receptor; glycoprotein; transmembrane
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Best Local Similarity 66.6%;
Matches 207; Conservative
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107-132
144-165
188-208
236-257
283-304
323-342
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#journal
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##molecule_type mRNA
##residues 387-400 ##label
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                                                                                                                        VLIIIVCYTLMILRLKSVRLLSGSREKDRNLRRITKLVLVVVAVFIICWTPIHIFILVEA
RVRNTVQDPAS 369
                             rirqntrdhps 377
                                                                              nvcnwilssaiglpvmfmattkyrgg-s-idctltfshptw-ywenllkicvfifafimp
                                                                                                                                                                                                                                                       YLMNSWPFGDVLCKIVISIDYYNMFTSIFTLTMMSVDRYIAVCHPVKALDFRTPLKAKII 178
                                                                                                                                                                                                                                                                             ylmgtwpfgtilckivisidyynmftsiftlotmsvdryiavchpvkaldfrtprnakii 189
                                                                                                                                                                                                                                                                                                                      PVIITAVYSVVEVVGLVGNSLVMEVIIRYTKMKTATNIYIENLÄLADALVTTTMPFQSAV 118
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FEBS Lett. (1994) 354:213-216
Expression of two variants of the
mRNA in SK-N-SH cells and human
S51215
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Wang, J.B.; Johnson, P.S.; Persico, A.M.; Hawkins, Griffin, C.A.; Uhl, G.R.
FEBS Lett. (1994) 338:217-222
Human mu oplate receptor. cDNA and genomic clones, pharmacologic characterization and chromosomal a $41075
                                                                                                                                                                                                                                                                                                                                                                                                                                                              #length
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#domain transmembrane #label TMM2\
#domain transmembrane #label TMM3\
#domain transmembrane #label TMM4\
#domain transmembrane #label TMM5\
#domain transmembrane #label TMM6\
#domain transmembrane #label TMM6\
#domain transmembrane #label TMM7\
#domain transmembrane #label TMM7\
#binding_site carbohydrate (Asn) (co
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52; Mismatches 49;
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#title Cloning and pharmacological characterization of a rat mu
#cross_references_MUID:94059560
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#journal proc. Natl. Acad. So
#title Mu opiate receptor:
#cross-references MUID:94052137
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FEBS Lett. (1993) 327:311-314
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#formal_name Rattus norvegicus #common_name Norway
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Pred. No. 7.06e-244;
53; Mismatches 50;
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Molecular cloning and functional expression of a receptor from rat brain.
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                                                           Zastawny, R.L.; George, S.R.; Nguyen, T.; Cl
J.; Briones-Urbina, R.; O'Dowd, B.F.
J. Neurochem. (1994) 62:2099-2105
Cloning, characterization, and distribution
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#formal_name Rattus norvegicus #common_name Norway rat
26-Jul-1996 #sequence_revision 26-Jul-1996 #text_change
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54; Mismatches 50;
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#accession I38657
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   #authors
                                           142
192 rdga-vv-cmlqfpsp--swywdtvtkicvflfafvvpiliitvcyglmllrlrsvrlls
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# #length 372 #molecular-weight 40368 #checksum 1/
                                                                                                                                                                                                                                                                                                                   ##molecule_type mRNA
##residues 1-372 ##label RES
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                                                                                                                                                        22 ILPNSSWPPNWAESDSNGSVGSEDQQLESAHISPAIPVIITAVYSVVFVVGLVGNSLVM 81
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##residues 1-398 ##label RES
##cross-references EMBL:U35424; NID:g1017731; CDS_PID:g1017732
XY #length 398 #molecular-weight 44403 #checksum 8604
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                                                    mftsiftltmmsvdryiavchpvkaldfrtpakakliniciwvlasgvgvpimvmavtrp
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                                MFTSIFTLIMMSVDRY.IAVCHPVKALDFRTPLKAKIINICIWLLASSVGISATVLGGTKV
                                                                                           FVIIRYTKMKTATNIYIFNLALADALVTTTMPFQSAVYLMNSWPFGDVLCKIVISIDYYN 141
                                                                                                                fgivrytkmktatniyifnlaladalatstlpfqsakylmetwpfgellckavlsidyyn 131
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                                                                                                                                                                                                                                          h 56.8%;
Similarity 63.1%;
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Similarity 65.88;
                                                                                                                                                                                                                                                                                                                                                                                                         Simonin, F.; Befort, K.; Gaveriaux-Ruff, C.; Matthes, I
Nappey, V.; Lannes, B.; Micheletti, G.; Kieffer, B.
Mol. Pharmacol. (1994) 46:1015-1021
The human delta-opioid receptor: genomic organization,
cloning, functional expression, and distribution in l
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delta opiate receptor - human
frommal_name Homo sapiens *common_name man
06-Sep-1996 *sequence_revision 06-Sep-1996 *text_change
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                                                                                                                                                                                                                        Score 1612; DB 13;
Pred. No. 2.14e-233;
60; Mismatches 58;
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Pred. No. 4.31e-241;
53; Mismatches 51;
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##residues 1-372 ##label RES
##cross-references EMBL:UU0475; NID:g403488; CDS_PID:g514211
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               yansslnpvlyafldenfkrcfrqlc
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YINSSLNPVLYAFLDENFKRCFRDFC
                                                GSREKDRNLRRITKLVLVVVAVFIICWTPIHIFILVEALGSTSHSTA-ALSSYYFCIALG
                                                                      gskekdrs1rritrmvlvvvgafvvcwapihifvivwtlvdinrrdplvvaalh1cialg 307
                                                                                                    REDVDVIECSLQFPDDEYSW-WDLFMKICVFVFAFVIPVLIIIVCYTLMILRLKSVRLLS
                                                                                                                     rdga-vv-ctlqfpsp--swywdtvtkicvflfafvvpillittvcyglmllrlrsvrlls 247
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Similarity 65.6%;
214; Conservative
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#length 372 #molecular-weight 40449
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Molecular cloning and expression of a
receptor from rat brain.
156571
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Primary structures and expression from receptor delta- and mu-subtypes.
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delta opioid receptor - rat
#formal_name Rattus norvegicus
10-Dec-1993 *sequence_revision
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Pred. No. 4.55e-233;
55; Mismatches 48;
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10-Nov-1995 #text_change
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#title Regional expression and chromosomal localization of opiate receptor gene.
#cross-references_MUID:94022364
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##residues 8-372 ##label BZD
##cross-references NCBIN:138618; NCBIP:138619
##experimental_source NG108-15 hybrid cells
##experimental_source extracted from NCBI backbone
sequence extracted from NCBI backbone
phosphoprotein; transmembrane protein
phosphoprotein; transmembrane protein
RY #length 372 #molecular-weight 40561 #checksum
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##cross-references EMBL:L06322
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##residnes
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NCE $37807
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355 QSTNRVRNT 363
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                                                                                                                                           IINICIWLLASSYGISAIVLGGTKVREDVDVIECSLQFPDDEYSW-WDLFMKICVFVFAF
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                                 gslrrprqa 351
                                                                     VEALGSTSHSTA-ALSSYYFCIALGYTNSSLNPVLYAFLDENFKRCFRDFCFPIKMRMER 354
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Proc. Natl. Acad. Sci. U.S.A. (1993) 90:6736-6740

Cloning and functional comparison of kappa and delta opioid receptors from mouse brain.

B48227
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Bzdega, T.; Chin, H.; Kim, H.; Jung, H.H.; Kozak, C.A.; Klee,
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                                                                      The nucleotide sequence of the novel mammalian kappa opioid receptor DNA. The gene was isolated by amplifying a fragment from rat brain mRNA cDNA. The gene was isolated by amplifying a fragment from rat brain mRNA by reverse transcriptase-pCR (RT-PCN) using primers 086726-7 derived from the mouse delta-opioid receptor gene. This fragment was cloned into the plasmid pCRII to produce pR11. The plasmid pR11 was used to probe a rat brain DNA library in lambda ZBNOPRO. This clone of the rat kappa opioid receptor gene, designated PKOPRO. This clone was introduced into E.coli JM109 for production of the receptor protein. The receptor protein is useful for screening of analgesic and hypnotic compounds including
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Mammalian kappa opicid receptor; mouse delta opicid receptor; analgesi amplification; primer; rat; probe; E.coli; RT-PCR; hypnotic compound;
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Claim 2; Page 9-10; 15pp; Japanese
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Human; kappa opioid receptor; psych neurology; diagnosis; ds.
Key
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07-JUL-1995; FR0912.

11-JUL-1994; FR-008531.

(UYSI-) UNIV PASTEUR STRASBOURG L(
Kieffer B, Simonin F;

WEI; 96-097628/10.
                                                                                                                                                                                                                                                                                                                          Claim 3; Bage 13-15; 30pp; French.

This sequence codes for the human kappa opioid receptor and was obtained from two overlapping cDNA fragments isolated from a human placental cDNA library. The fragments were amplified from the library using PCR primers based on the sequence of human genomic clones which hybridised with a murine delta receptor cDNA probe. Nucleotide probes derived from the kappa opioid receptor coding sequence are useful for diagnosis of neurological, cardiovascular and psychiatric disorders associated with opioid
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New nucleic acid in diagnosis and
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/product= kappa_opioid_receptor
/note= "incomplete termination"
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Mouse; kappa delta; mu; opioid receptor; brain; pr
transmembrane domain; somatostatin; receptor: humoate; chimaeric; assay; prohermosapiens.
Key
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                                                                                                                Location/Qualifiers 102..989
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Pr Polynucleotides and peptides derived from opioid receptor pr polypeptides - for use in therapeutic compositions and in polypeptides - for use in therapeutic compositions and in properties - for use in therapeutic compositions and in properties - for use in the receptor contain 10; Page 236-239; 300pp; English.

CC The partial nucleotide sequence of the novel human kappa opioid receptor gene. The gene was isolated from a human brain hippocampus cDNA library consing a probe from the mouse kappa opioid receptor gene (Q75926). The consing a probe from the mouse kappa opioid receptor sequence is wissing the N-terminal sequence. The C-terminal sequence is consistent to the mouse kappa opioid receptor sequence. Of the conservative substitutions. The gene encoding the human opioid receptor can be placed in a suitable expression vector for production of the protein in a cell. The opioid receptors thus produced are useful for the development of novel assays designed to select or improve substances, capable of interacting with the opioid receptor proteins, for use in diagnosis, drug design and therapeutic applications.

Sequence 1000 BP; 238 A; 253 C; 278 T;
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20-MAY-1993; US-066396,
30-JUL-1993; US-100694,
05-NOV-1993; US-147592,
(ARCH-) ARCH DEV CORP.
Bell Reisine T, Yas
WFI; 95-022804/03,
P-PSDB; R67672.
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                      gotggaotoccattcacatattcatcotggtggaggctctggggagcacctcccacagca
                                                                                      atnncaacctgcgtaggatcaccagactggtcctggtggtggtggcagtcttcgtcgtct
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87.6%;
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Pred. No. 0.1
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d. No. 0.00e+00;
Mismatches 109;
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Matches
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Sequence 2070 BP; 526 A; 564 C; 423 G; 557 T;
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R65188 is
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/product= Mu:
EP-612845-A.
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Q79199;
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(AMCY ) AMER:
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Rat mu-subtype opioid receptor
Mu-subtype opioid receptor; MS
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TGATGAATTCTTGGCCTTTTGGAGATGTGCTATGCAAGATTGTCATTTCCATTGACTACT
                    tgatgggaacatggcccttcggaaccatcctctgcaagatcgtgatctcaatagattact
                                                                     accttgctctggcagacgccttagcgaccagtacactgccctttcagagtgtcaactacc
                                              ACCTGGCTTTGGCAGATGCTTTGGTTACTACCACTATGCCCTTTCAGAGTGCTGTCTACT
                                                                                             tcatgtatgtgattgtaagatacaccaaaatgaagactgccaccaacatctacattttca
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94-265963/33.
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B-1993; US-026140.
) AMERICAN CYANAMID (
It MJ, Eppler ?**
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                                                                                                                                                                                                Similarity 70.6% 509; Conservative
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                                                                                                                                                                                                                                                                                                                                                                       opioid receptor
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Pred. No. 6.23e-205;
0; Mismatches 244;
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New nucleic acid encoding new human mu opioid receptor - and related vectors, transformed cells, antibodies etc., useful in diagnosis, treatment and drug screening. Disclosure; Page 190-194; 266pp; English.

A 365 bp fragment of the mouse delta opioid receptor was used to screen a rat brain cONA library under low stringency conditions, one positive clone included the sequence given in 089222, encoding un opioid receptor, MOR-1 (R71964). MOR-1 was stably expressed transfected CHO cells.

Sequence 1618 BP; 390 A; 486 C; 370 G; 372 T;
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. No. 1.96e-203;
Mismatches 245;
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JR P-PSDB; R71965.

JR P-PSDB; R71965.

PT New nucleic acid encoding new human mu opioid receptor nucleic acid encoding new human mu opioid receptor new nucleic acid encoding new human mu opioid receptor new nucleic acid encoding antibodies etc., useful in pri diagnosis, treatment and drug screening.

PT diagnosis, treatment and drug screening.

PT diagnosis, treatment and drug screening.

PT diagnosis, treatment and drug screening.

CC A 365 bp fragment of the mouse delta opioid receptor was used to come positive clone included the sequence given in 089222, encoding a come positive clone included the sequence given in 089222, encoding a common opioid receptor, MCR-1 (R71964). Sequence analysis revealed an cc alternative reading frame (089223) encoding a zinc cc finger-containing transcription regulatory protein (R71965).

CC finger-containing transcription regulatory protein (R71965).
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13-SEP-1994;
13-SEP-1993;
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tggctgtatttatcgtctggtacccccatccacatctacgtcatcatcaaagcgctga
                               CTGGCTCCCGAGAGAAGGACCGAAATCTCCGCCGCATCACCAAGCTGGTGCTGGTAGTAG
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ilarity 70.5%;
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13-AUG-1992; US-929200.
(REGC ) UNIV CALLFORNIA.
Edwards RH, Events CU, K.
WPI; 94-083099/10.
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Example; Fig 9; 74pp; English.

A cDNA library prepd. from mouse brain was probed using DOR-1 (see O56704) as a probe. One clone was recovered and sequenced. This clone, designated DOR-2, represented a new gene. DOR-2 hybridised to a different pattern of heuorns than did DOR-1 and showed greate labeling of the striatum. The identity of DOR-2 (mMOR-1) as that can mu receptor was confirmed.
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Q56705;
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Opioid receptor; morphine; opiate;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Partial sequence of
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caactggatcototottotgocattggtotgocogtaatgttoatggcaaccacaaaata
                                                                        CCACCCTGTGAAAGCTTTGGACTTCCGAACACCTTTGAAAGCAAAGATCATCAACATCTG
                                                                                                        ccacccggtcaaggccctggatttccgtaccccccgaaatgccaaaattgtcaatgtctg
                                                                                                                                                                       CATGTTTACCAGCATATTCACCTTGACCATGATGAGTGTGGACCGCTACATTGCTGTGTG
                                                                                                                                                                                                  catgttcaccagtatcttcaccctctgcaccatgagtgtagaccgctacattgccgtctg
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larity 70.6%;
Conservative
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RESULT ACCOUNTS OF THE PROPERTY OF THE PROPERT
                                     In NA encoding opioid receptors and antibodies against this receptor - used to express and locate these receptors, and screen cpds. for opioid (ant)agonist activity

PT cpds. for opioid (ant)agonist activity

PS Claim 1; F15; 74pp; English.

CC A cDNA library was constructed using mRNA isolated from the NG109-15

CC cell line. A single clone, named the DOR-1 clone was isolated.

CC Comparisons with known sequences in GenBank showed highest homology

CC between DOR-1 and the G-protein-coupled somatostatin receptor. Other

CC sequence include 3 consensus glycosylation sites at residues 18 and

CC sequence include 3 consensus glycosylation sites at residues 18 and

CC residue 310 (close to the extracellular N-terminal domain), and at

CC intracellular). Phosphokinase C consensus sites are present within

CC predicted intracellular domains, at residues 242.255, 344 & 352.

CC Seven putative membrane-spanning regions were identified. The DOR-1

CC clone produces a delta receptor with a predicted mol. wt. of 40,558

CC sequence 1821 Bp; 339 A; 559 C; 541 G; 382 T;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     δÃ
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            Query Match
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13-AUG-1993; U07665.

13-AUG-1992; US-929200.

(REGC ) UNIV CALIFORNIA.

Edwards RH, Evans CJ, K;

MPI; 94-083099/10.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mus musculus.
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Score

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Length 1821

Best Loc Matches

Local

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truncate; chimaeric; Mus musculus.

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Mouse delta opioid receptor mORD1 cDNA.

Mouse; kappa; delta; mu; opioid receptor; brain; prii
transmembrane domain; somatostatin; receptor; human;
                                                                                           IT 10
Q75927 standard; DNA; 2272
Q75927;
Q75927;
17-AUG-1995 (first entry)
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Mismatches 234;
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Proceeding assays for useful drug substances.

Proceding a mouse delta opioid receptor mouse brain cDNA library using a composition of the conserved sequences present in the composition of sometostatin (SRIF) receptor composer the primers are based on the conserved sequences present in the composition of sometostatin (SRIF) receptor composer delta opioid receptor clone, lambage and transment from the mouse delta opioid receptor clone, lambage and transment from the conserved sequences production. The composition of compositio
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20-MAY-1994;
20-MAY-1993;
30-JUL-1993;
05-NOV-1993;
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Bell GI, Reisine T,
WPI; 95-022804/03.
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g-gaca-ctgtg-accaagatctgcgtgttcctctttgccttcgtggtgccgatcctcat
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597; Conser
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US-100694.
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larity 70.8%;
Conservative
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Pred. No. 5.67e-190;
0; Mismatches 234;
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23-MAR-1995.

13-SEP-1994; U10358.

13-SEP-1993; US-120601.

(INDV) UNIV INDIANA FOU
                                                                                                                                                                                                                             screened with rat mu opioid receptor cDNA under conditions o low stringency. One positive clone included the sequence gi 089226, encoding a mu opioid receptor MOR (R71964). The cDN is used for prodn. of recombinant MOR, in gene therapy, etc. Sequence 1610 BP; 384 A; 467 C; 359 G; 400 T;
                                                                                                                                                                                                                                                                              New nucleic acid encoding new human mu opioid receptor and related vectors, transformed cells, antibodies etc., useful in diagnosis, treatment and drug screening.

Claim 5, Page 208-210; 265pp; English.

A cDNA library constructed from human caudate nucleus mRNA was screened with rat mu opioid receptor cDNA under conditions of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LT 11
Q89226
Q89226;
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Human mu opioid receptor cDNA.
Mu opioid receptor; MOR; gene
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                                                                                                                            ATCACCGCTGTCTACTCTGTGGTATTTGTGGTGGGCTTAGTGGGCAATTCTCTGGTCATG
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                                                                           SCITTGGCAGATGCTTTGGTTACTACCACTATGCCCTTTCAGAGTGCTGTCTACTTGATG
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                                                                                                                                                                                 Similarity 70.0%; 601; Conservative
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Mu opiate receptor; hMOR; opia
drug abuse; analgesic; ds.
Homo sapiens.
New DNA encoding human mu opiate receptor cpds. for activity as opiate agonists or a Claim 4; Page 24-25; 49pp; English. hMOR cDNA was obtd. from a human cerebral screened with fragments of a rat mu opiate
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                                                      CAACAGCAGCCTGAATCCTGTTCTCTATGCCTTTCTGGATGAAAACTTCAAGCGGTGTTT
                                                                                                             ACCTCCCACAGCACAGCTGCCCTCTCCAGCTATT-ATTTCTGTATTGCCTTGGGTTATAC
                                                                                                                                                                  GTCTTCATCATCTGTTGGACCCCCATTCACATCTTTATCCTGGTGGAGGCTCTGGGAAGC
                                                                                                                                                                                                                      TCCCGAGAGAAGGACCGAAATCTCCGCCGCATCACCAAGCTGGTGCTGGTAGTAGTTGCA
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601; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 be used as probes to examine the structure and nes or to screen individuals for susceptibility Expression in e.g. COS cells allows production nant hmorn.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   20.5%;
larity 70.0%;
Conservative
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. No. 1.77e-188;
Mismatches 246;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         566 C;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mismatches
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/product= opioid_receptor
FR2697850-A.
13-MAY-1994.
10-NOV-1992; 013526.
10-NOV-1992; FR-013526.
(UTST-) UNIV PASIEUR STRAS!
Kieffer B:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           polypeptide, antisense nucleic acid, probes, recombinant and ligands, useful in diagnosis and treatment of e.g. neurological disorders Claim 3; Page 16-18; 29pp; French.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Q66656;
19-JAN-1995 (first entry)
Murine delta opioid receptor coding sequence.
delta opioid; enkephalin; receptor; mouse; mu
drug addiction; neurological disorder; psychi
cardiovascular disorder; ds.
Mus musculus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Claim 3; Page 16-18; 29pp; French.

A CDNA bank constructed from hybridoma NG108-15, was used to transfect COS-1 cells. The cells were tested for ability to bind tritium-labelled Tyr-D-Thr-Gly-Phe-Leu-Thr, in the presence or absence of the opioid antagonist naloxone. Clone K56 was isolated from a positive colony and found to contain a 2216bp insert. This cDNA encodes a delta opioid (enkephalin) receptor with apparent dissociation constant 1.4nM and Emax 3.9-6.4 pmole/mg protein. sequence 2216 BP; 460 A; 647 C; 649 G; 460 T;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WPI;
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                                                                                                                                                                                                                                                          ggaaacgtggccgtttggcgagctgctgtgcaaggctgtgctctccattgactactacaa
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                                                                                                                                                                                                                                                                                                                                                                                                                      GIGGGATCTCTTCATGAAGATCTGTGTCTTCGTCTTTGCCTTTGTGATCCCAGTCCTCAT
                  gac--a-ctgtg-accaagatctgcgtgttcctctttgccttcgtggtgccgatcctcat
                                                           CAGGGAAGATGTGGATGTCATTGAATGCTCCTTGCAGTTTCCTGATGATGAATATTCCTG
                                                                                                                    CATTIGGCICCIGGCATCATCIGTIGGTATATCAGCGATAGICCITGGAGGCACCAAAGI
                                                                                                                                     catotgggtottggottoaggtgtoggggtococoatoatggtoatggcagtgaccaacco
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                                                                          -gggatggtgcagtggt-at-gcatgctcc----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              597;
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Similarity 70.8%;
597; Conservative
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Pred.
0; M
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1. No. 8.97e-179;
Mismatches 231;
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                                                                            agttocccagtccagc-tggtactg
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Sequence 829 BP; 182 A; 205 C; 134 G; 214 T;
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Best Local :
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13-AUG-1993, U07665.
13-AUG-1992, US-929200.
(REGC ) UNIV CALIFORNIA.
EGWARIGS RH, EVANS CJ, K
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W09404552-A.
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Partial sequence of the hu
genomic clone H20 (MORa).
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tattcaccctctgcaccatgagtgttgatcgatacattgcagtctgccaccctgtcaagg
                                                                                                      ttggaaccatcctttgcaagatagtgatctccatagattactataacatgttcaccagca
                                                                                                                                                                                                         ccttagccaccagtaccctgcccttccagagtgtgaattacctaatgggaacatggccat
                                                                                                                                                                                                                                                                             GATACACGAAGATGAAGACCGCAACCAACATCTACATATTTAACCTGGCTTTGGCAGATG
                                                           TIGGAGATGTGCTATGCAAGATTGTCATTTCCATTGACTACTACAACATGTTTACCAGCA
                                                                                                                                                                    CTTTGGTTACTACCACTATGCCCTTTCAGAGTGCTGTCTACTTGATGAATTCTTGGCCTT
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                                                                                                                                                                                                                                                                                                                                                                                            Similarity 62.8%; 493; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            morphine;
                                                                                                                                                                                                                                                                                                                                                                                                                        16.3%;
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23-MAR-1995.
13-SEP-1994; U10358.
13-SEP-1993; US-12060
New nucleic acid encoding new human mu opioid receptor - and related vectors, transformed cells, antibodies etc., useful in diagnosis, treatment and drug screening.

Example 9; Page 218-22; 266pp; English.

The cDNA given in 089233 was isolated from a rat brain library low stringency hybridization with rat mu opioid receptor cDNA (08922). The clone encoded a 367-amino acid protein (R71968) that showed high homology with mu, kappa and delta opioid receptut lacked affinity for their ligands, suggesting it to be a novel member of the opioid receptor family.

Sequence 1567 BP; 313 A; 440 C; 402 G; 412 T;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Rat opioid receptor cDNA.
Opioid receptor; MOR-1; gene therapy;
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Q89233 standard; cDNA;
Q89233;
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                                                                                                                                                                                                                                                                                                                                                                                  TGGCATCATCTTGGTATATCAGCGATAGTCCTTGGAGGCACCAAAGTCAGGGAAGATG
                                                                                                                                                                                                                                                                                                                                                                                                      tggcttcagtggtttggtgttcctgttgccatcatgggttcagcacaagt---ggaagatg 749
                                                                                                                                                                                                                                                                                                                                                                                                                                               gtgcccttgatgttcggacatccagcaaagcccaggctgttaatgtggccatatgggccc 692
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GCATATTCACCTTGACCATGATGAGTGTGGACCGCTACATTGCTGTGTGCCACCCTGTGA
                                                            toaatccoattctctatgctttcctggatgagaacttcaaggcctgctttagaaagttct
                                                                                              gtgagactgcagttgccatcctgcgcttctgcacagccctgggctatgtcaacagttgtc 1103
                                                                                                                                                         gotgotggaogocotgtgoaggtgtttgtcotggttcaaggaotgggtgttcagccaggta 1043
                                                                                                                                                                                         AGGACCGAAATCTCCGCCGCATCACCAAGCTGGTGCTGGTAGTAGTTGCAGTCTTCATCA 1038
                          gct 1166
 GCT 1221
                                               TGAATCCTGTTCTCTATGCCTTTCTGGATGAAAACTTCAAGCGGTGTTTTAGGGACTTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 220; DB 14; Length 1567; 
Pred. No. 3.67e-137; 
0; Mismatches 280; Indels 9
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Search completed: Tue Aug Job time : 183 secs.

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